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Original Contributions.

ARTICLE I.

REPORT OF A CASE OF HEPATITIS RESULTING IN DEATH.* By B. B. KELLY, M. D., of Deadwood, D. T.

Gentlemen of the Black Hills Medical Society:—The duty assigned me can be best fulfilled by reporting a casein my practice, and as in my humble opinion, the highest aim of a physician should be to perfect himself in the art of diagnosis, so the greatest amount of benefit will accrue to the profession at large, through the medium of our medical societies, by each member thereof, reporting from time to time such cases of his daily practice as have put his own powers of discrimination to the test. Let us not hesitate to report cases in which we cannot arrive at a radical diagnosis. The diseases, that are most thoroughly obscured by concurrent symptoms are the ones from which we will derive the most benefit by reporting to each other and comparing professional opinions as to the relative importance of the symptoms present. Thus the combined wisdom of this society may be concentrated on the cases reported, and the reporter thereof and perhaps his patient benefited thereby.

HISTORY.—Female, æt. 38, multipara, oldest child 20, youngest 4 or 5. Nervo-bilious temperament. She has suffered several years, (15 or 16 years) with occasional attacks of sharp severe pains coming on suddenly and continuing in paroxysms for variable length of time, with dull, grinding, aching pain and soreness in the meantime around region of ensiform cartilage and extending around right side, both above and below the border of the ribs, and the pain apparently passing straight through to the back to the lower angle of the scapula, accompanied with a sensation of coldness over this region of the spine to such an extent that she has often applied hot fomentations to the back, or heated it by sitting with her back to the fire. Has suffered some in former years with falling of the womb, but has been

*Read before the Black Hills Medical Society, Deadwood D. T. March 25, 1882.

almost free from that trouble in the last few years. Menstruation has been regular and natural; has noticed change in her complexion in the time she has been suffering, from clear, light skin to sallow, darker shade; has always been subject to spells of sick headache. Symptoms June 25, 1882, 4 P. M.:

Pulse 120; temperature 100°.5 dorsal decubitus; knees partially flexed; expression anxious; lips dry and discolored with dark sordes; tongue free from coating, somewhat dry; appetite reasonably good; extreme tenderness from ensiform cartilage down along right costal border, also over dorsal spine below angles of scapulæ. Most marked on right side of spinous processes, touching the right epigastric and hypochondriac region caused so much pain and such violent contraction of the abdominal muscles, that it was impossible to make a satisfactory examination of the parts; gave one-third grain of morphine hypodermically. Patient has been unable to move from present position since 2 o'clock A. M., every attempt at movement causing excruciating pain, which she describes as like tearing the sore parts. Has not been able to be up all day for the last two weeks; has been under the treatment of a quack calling himself Dr. Orennan, who tells her it is disease of the stomach, and has been giving her something that he says is an entirely new remedy just out (it smells and tastes like opium). Further examination under the influence of the anodyne reveals the presence of a tumor in right hypochondrium, apparently about the size of a hen egg, of irregular oval contour. Obtuse angles can be distinctly felt on it, the larger end of the tumor pointing forward and to the right, it presents a feeling of unmistakable solidity and elicits complaint of pain on slight pressure even under the existing influence of the anodyne.

Upon turning patient on left side the tumor gravitated to space between the ensiform and costal cartilages; change of position soon causing return of pain, and rigid contraction of abdominal muscles and diaphragm. When the tumor is grasped in the fingers it is slightly movable, but is pretty firmly attached apparently to the under surface of the liver. There is no feeling of fluctuation in or around it. Action of kidneys normal; action of bowels at present normal, but there has been a habitual tendency to costiveness for several years past. Has often suffered from cold clammy sweats and feeling of faintness. For the last week has had chilly feeling, not amounting to a chill, but felt it

difficult to keep warm. Has had attacks of nausea causing efforts at vomiting, which always caused extreme pain.

DIAGNOSIS.—Bilious colic caused by repeated passage of biliary calculi. Chronic hepatitis, tumor caused by calculus in gall bladder.

TREATMENT.—Two grains hydrarg. submur. four times a day for two days; locally a nitro-muriatic acid lotion to side and back three times a day, with anodyne of chloral hydrate and bromide potassium, to be taken if pain becomes severe again.

We aim to accomplish by this treatment:

1. Increased secretion from the glandular structure of stomach, duodenum and liver, with increased peristaltic action and the local sedative and the relaxing effect of the mercurial on the muscular and mucous coats of the stomach and duodenum, and more especially the ductus communis choledochus, hoping thereby to facilitate the expulsion of the calculus supposed to be in transit.

2. The nitro-muriatic lotion is supposed to supplement the above treatment by rendering the hepatic secretion more fluid, thereby increasing its solvent power, with local revulsive action.

In submitting this imperfect sketch of a hard case, I hope to induce lenient criticism by promising you another chapter on the future developments of this case, entitled "Prognosis."

The following are further notes of the case:

Jan. 28. Pain still continues pretty severe but is partially controlled by the anodyne; stools of grayish color and contain hard lumps of feces. Pulse 112; temperature 100°; gums tender from influence of mercurial; enlargement of liver still greater than at first examination, and tenderness extending further to the right. Mouth dry, occasionally feels nauseated. Prescribed pepsin and bismuth. Continue hydrarg. submur. two grains twice a day, and give ten grains bicarb. potass. four times a day, also continue bromide and chloral as anodyne and nitro-mur. lotion externally; injection of warm water once a day if bowels do not move, and hot fomentations to side when pain is severe.

Jan. 31. Bowels have moved every day aided by warm water injection; passages natural and tinged with bile. Still unable to move from dorsal position without suffering extreme pain. Point of extreme tenderness two inches below and to the right of the ensiform cartilage. No diminution in the size of organ; has had slight chills several times; appetite better and

feels stronger; pulse 120; temperature 99°; has spells of sweating; tumor can be plainly felt apparently about the same size, but is forced downward by the greater enlargement of right lobe of liver.

Continue bicarb. potass. and give opium and belladonna suppositories to controll the pain. Think it probable that suppuration may take place at the point at the right of ensiform cartilage.

Feb. 5. General appearance of patient better, and has rested more comfortably under the influence of the anodyne suppositories. Still suffers at every movement. Clay colored stools again. No further indications of suppurative action. Tenderness more diffuse. Pulse 120; temperature 90°. Enlargement of liver about the same; tumor still hard and tender. Ordered blister 6×8. Suppositories and bicarb. potass. continued.

Feb. 7. Strangury causing great increase of suffering for a while; caused them to send for me; found good blister drawn; strangury subsiding; omit bicarb. potass. and give nitro-muriatic acid in extract sarsaparilla.

Feb. 13. No material change in the case; blister healing; has relieved tenderness and pain near the ensiform cartilage; the stools show secretion of bile, and bowels below enlarged liver feel more soft and natural; mouth dry and occasional nausea: appetite not so good; add two grains quinine, one grain mass hydrarg. four times a day. Suppositories often enough to control pain and procure rest. Nitro-mur. acid and sarsaparilla continued.

Feb. 17. The blister has healed up so we can examine the parts thoroughly again. Find no diminution in the size of the organ, nor change in its uniform hardness. The tumor on under surface of liver still the same in size and feeling, but the tenderness is not so great. Conclude that the case will not materially change for some weeks—and as case is about twenty miles from Deadwood—leave it in care of Dr. Southern, of Spearfish, to be called again if any change in patient's condition occurs. Continuing tonic and anodyne treatment.

March 10. Called to see the case again and find the patient more emaciated and the enlargement of the liver decidedly greater, the left lobe descending two inches below the left costal border, where its edge can be distinctly felt. Enlargement of right lobe of liver is not greater than it was at former examination.

Anodyne having failed to control suffering, increased quantity to two and one-half grains opium, one-third grain extract belladonna suppository every four hours. Recommended moving patient nearer town. Pulse 120; temperature 99°; tongue slightly coated and occasional vomiting. Stimulents, beer or wine.

March 13. Dr. Houghton called in consultation, found patient more comfortable and after examination jointly recommend moving to secure better cure. Introduce seaton over right epigastric region, and prescribe two and one-half grains each of quinine and blue mass three times a day. Nitro-mur. acid gtt. iv. four times a day. continue anodyne suppositories, stimulants and nourishing diet.

March 15. Visited patient 7 : 30, P. M. Had been moved about twenty miles; no other inconvenience from ride except tired and weak. No increase of pain; bowels moved soon after arrival, soft and natural, tinged with bile. Some nausea. Seaton discharges very little. Apply citrine ointment, and order it moved twice a day. Gums tender. Discontinue nitro-mur. acid and direct more stimulation, beef tea and milk and lime-water.

March 17, 11 A. M. Patient slept well last night. Free movement of bowels this morning, since which time has felt more pain and exhaustion and faintness. Pulse 120 weak; temperature 97°.5. Has been vomiting. Gave pepsinand bismuth. Hot fomentations. Countenance hypocratic. Face and extremities cold. Rallied some during the two hours I remained. Slept some. Continue quinine and blue mass twice a day, anodynes to control pain.

March 18, 11 A. M. Patient rested well last night. Countenance brighter. Inclined to sleep. Pulse 120. Temperature 98°. Extremities still cool. Hot application to the extremities. Not troubled so much with nausea. Takes beef tea and stimulants freely.

March 18, 10 : 30 P. M. Patient taken worse about 6 P. M. On my arrival found gasping respiration, semi-unconscious, thready pulse, perceptible for one-half hour. Could swallow, gave carbonate of ammonia; no reaction. Died at 11 : 30.

March 19. Post-mortem seventeen hours after death. Abdominal section reveals:

1. Omentum and anterior surface of liver adhering to abdominal walls, and to within one inch of umbilicus, fatty

deposit on the omentum straw-colored and scant. Adhesions of peritoneum extending down on right side and becoming free on the left side and over the stomach.

2. About one and one-half pints straw-colored serum in the peritoneal cavity, and the stomach displaced downward by the enlarged liver, and distended with gas and fluid.

3rd. Liver projecting below the ribs and adherent to anterior abdominal walls, lower edge extends down within two inches of the umbilicus. Surface of the organ presents gray mottled appearance. Spots ¼ to ½ inch in diameter round and umbilicated; entire organ gives hard unyielding and roughened feeling.

4th. In attempting to remove the liver found the under surface firmly adherent to the pyloric end of stomach, duodenum, and head of pancreas, tied œsophagus and jejunum and removed the stomach, duodenum and pancreas with the liver, found some inspissated bile in hepatic and common duct; little color in gall bladder but found its cavity completely filled with biliary calculi numbering 98 in all, of which 85 were solid gall stones and 13 were semi-solid or soft concretions easily broken up with the fingers. Of the solid stones, one larger than the rest, occupied the neck of the gall bladder, just back of the commencement of the cystic duct the walls of the gall bladder fitting closely around its surface, completely blocking the entrance to the cystic duct, this stone was the size of large marble or hulled hickory-nut and weighed 72 grs. and has two flattened surfaces on it, worn smooth by the grinding action of the smaller stones against it.

The other solid stones 84 in number, varied in size from that of a pin-head to a grain of corn all presenting smooth surfaces and obtuse angles, evidently having been ground against each other by the churning peristaltic action of the gall bladder in its efforts to expel them, for a long time. Weight of the stones 181 grains, weight of liver nine (9) pounds. The gall bladder presented decided thickening of its walls at its base where the thickness measured ½ inch, and was further thickened by the deposit of fibrous tissue in the form of a tumor around its base.

The walls of the duodenum uniform dark congested appearance spot of congestion extending down in walls of jejunum, some of the mesenteric glands enlarged to the size of a marble. Spleen atrophied, dark and wrinkled; substance of kidneys looks healthy but noticed a little purulent fluid in the pelvis of the left one.

Article II.

A Case of Unilateral Cerebral Traumatism in a Child with Hernia Cerebri and Considerable Loss of Brain Substance Resulting in Recovery without Impairment of Intellect.

By W. A. Monroe, M. D., of Memphis, Mo.

The cases of remarkable recoveries from brain injury, with loss of brain substance, are sufficiently numerous, and familiar to the profession, to render it unnecessary for me, in making record of this case, to compile or refer to them. The authors are agreed as to the essentially grave and serious nature of all injuries to the dura mater and brain, and most of them, while citing a few remarkable recoveries such as the case reported by Prof. Bigelow, where an iron tamping-rod, three feet long was driven through the brain, the patient ultimately recovering with the loss of an eye—speak of them as rare exceptions, and state that as a rule they are fatal; but, when in addition to the simple wound, we have the complication of a foreign body left imbedded in the brain and hernia cerebri, with sloughing and extensive loss of brain substance, they tell us "treatment is extremely unsatisfactory—stupor speedily comes on and death results from coma." The dangers that await a case of cerebral traumatism, are. in the order of their occurrence, 1st. immediate death from involvement of the respiratory tract; 2nd. within a few hours from continuance of shock or extravasation of blood; 3rd. at a later but indefinite period from encephalitis, abscess, etc., and 4th, more remotely from paralysis.

Passing to the treatment of cerebral wounds, the authors are agreed that "foreign bodies within the brain are always potential for mischief" and that "every reasonable effort should be made to remove them." As to the hernia cerebri some recommend that it be "shaved off"—others that it be let alone—beyond this and the enjoining of quiet and rest and the application of cold or antiseptic dressings, conjoined with mild antiphlogistic treatment during the inflammatory stage, little, say they, can be done.

The interest that attaches to these cases, however no longer so much from ths *possibility* of complete recovery as from the interesting questions growing out of it, viz: whether the loss of brain substance, it may be of one or more convolutions or special centers of cerebration, *is reproduced* vis naturæ—or whether the function of such center is performed vicariously by the corresponding portion of the other hemisphere. This question, interesting as it is, I have neither time in this paper, nor ability to discuss, hence will leave it to other hands and content myself with simply placing on record, as my memory serves me, this, to me, most interesting case, only calling attention to the practical point illustrated by it, viz:—the wonderful resources of nature, *when uninterfered with,* for effecting beneficent results.

CASE.

On the evening of July 1st, 1877, I was called hurriedly to the family of Mr. Jas. Young, four miles in the country, the messenger stating that a little girl had fallen from a cherry-tree and would probably be dead before we arrived. I made all possible haste, and on my arrival found several neighbors gathered in, and all believing the child in articulo mortis. Passing through the yard I was shown the tree and limb from which she had fallen—the limb about ten feet from the ground—and also a fragment of an old iron pot which had been upturned under the tree, and one leg of which, about 2¼ inches long and an inch in diameter at the base tapering to ½ inch at the extremity, they informed me had penetrated the skull—this statement was confirmed by the fact that the leg was still covered with blood and particles of brain matter.

On entering the house I found my patient lying on the bed—a girl apparently of eight years—and, with the exception of an occasional convulsive effort at respiration accompanied by a low moan, presenting the aspect of a cadaver. On examination I found her almost pulseless—pupils widely dilated—respiration as stated slow and imperfect and the sensorium in a state of deep stupor which I could but believe would end only in the deeper sleep of death.

Passing to the site of injury, I found near the superior margin of the frontal bone and in front of the anterior-sup. angle of the right parietal bone, an opening about an inch in diameter. (*I did not probe to ascertain its depth.*) There was as yet only a slight

protrusion of cerebral matter but found more or less mixed with clotted blood in the matted hair around the wound—the hemorrhage had been comparatively slight. Finding no spiculæ of bone on the surface I concluded the piece *punched in* had been carried and left imbeded probably two inches in the cerebrum, and determined to leave it there. Believing the child would not live more than an hour or two, I simply directed a cold compress to the wound, warmth to the extremities and a mild stimulant in case she could swallow and left, directing them to report if she should rally from the *shock* and survive the night.

The next day, to my astonishment, Mr. Young came in and reported the child still living and with improved pulse and respiration, and though still in stupor, *it* was not so profound, she had become somewhat restless and disposed to sigh. I could not visit her on that day and directed the same course of treatment until I should come. On the third day I visited my patient. Dr. J. D. Justice, now of Belle Plaine, Ky., accompanying me, and found her quiet, rational, good pulse, good respiration, taking nourishment, and family and friends wonderfully encouraged. On examining the wound we found a *protrusion* of *brain substance as large as a hen's egg*, although *there were no inflammatory symptoms, nor indications of effusion* within the brain to account for it.

Recognizing the good offices of nature thus far, I determined to still trust the case in her benificent hands and directing them to keep up the cold compresses, (without much compression now, however) and enjoining absolute quiet and rest, after repressing their bouyant hopefulness somewhat, by explaining the secondary dangers through which she had to pass, I left and did not see my patient again—tho' she was reported doing well in the meantime—until the 14th day, when I was called to find her in the inflammatory crisis; muttering delirium, quick pulse, contracted pupils, etc., etc. At this visit I found the hernia cerebri had disappeared, *having gradually sloughed away*. I now removed the hair from around the wound and after searching the surface for spiculæ and finding none, declined to interfere further, in spite of the protest of outside friends, who thought I ought to probe the wound for the pieces of bone, which, in their estimation, were doing the mischief. I now directed a redoubling of the cold applications and other mild antiphlogistic treatment and left the case again in the hands of nature, hoping that the pro-

cess of suppuration, which had now begun, would dislodge and expel the pieces of bone and the case then progress favorably to recovery. I am happy to say my hopes were realized and on the 21st day I had the pleasure of examining half a dozen pieces of bone which during the week had made their way to the surface and been removed by the father. At this date the child was perfectly rational, supuration had almost ceased, the wound healthy and general condition good.

The case now progressed rapidly and evenly and within two months from date of injury I called, in passing, and found the child playing around with the other childen, the wound having healed entirely and she suffering no inconvenience from it other than an occasional headache when exposed to the sun or fatigued from too much exercise. It is now nearly five years since the accident, the child has attended school regularly and is bright and quick in her studies, exhibiting no psychogical pecularities. The family say they can notice no difference in her unless it be that she is livelier and more mischievous.

In concluding the record of this case all the merit I claim in connection with it is that of *letting it alone.*

Had I listened to the urgent demand of over-zealous outside friends, who at one time urged upon the parents a change of doctors, under a plea that I was "*doing* nothing for the child" and would certainly let her die, when "her life might be saved by searching for and removing the pieces of bone;" had I yielded to their importunities and explored the wound *ever so gently,* I am satisfied the super-added excitation would have turned the scale, the existing circumscribed cerebritis would have become diffuse and rapidly involved the centers of organic life and death the speedy result. Left to the slower but far safer process of nature, the diseased action remained limited to the seat of injury and to the beneficent purpose of expelling the fragments of bone and broken brain tissue, which, being accomplished, the process of repair *progressed* unimpeded and complete recovery was the result.

NOTE.—This family is remarkable for *lucky* accidents. About a year after the above I was called to see a nursing infant that had fallen from a second story window (12 or 13 feet) upon the *hard clay* ground, sustaining no other injury than a transverse fracture of one femur and it recovered in due time in good shape.

Article III.

A History of a Case of Rupture of the Uterus during the Eighth Month of Gestation, with a Description of the Post-mortem. By Walter B. Dorsett, M. D., of St. Louis.

I was invited by Dr. Robinson, to see a lady on March 31, 1880, and from her got the following history:

Mrs. A. C. B., colored; æt. forty years; nativity, Virginia; occupation, washerwoman. First menstruated at the age of thirteen years, and continued to menstruate regularly all her life except during her pregnancies. Had given birth to nine healthy children, all of whom were born at full term, and three years apart.

She was a well-developed, muscular woman and had always enjoyed good health. Menses stopped nine months prior to my visit, and she suffered no inconvenience from the condition except from violent movements of the child. She knew she "was in the family way because she felt just like she did when she was carryihg her other children." One evening about six weeks ago, on coming home very tired from a hard day's work, sat down to rest, and on jumping very suddenly to catch a little child who was running towards an open fire, she felt a violent pain in her abdomen. She said "it felt like the child stretching out." This was followed by a "giving way" sensation, "then as if a bird was fluttering in her abdomen." Feeling very faint and weak, she immediately went to bed and sent for a physician. The physician soon arrived and upon examination found that she was bleeding, and "told her she was in the 'family way,' and that the afterbirth was in front of the child," (he no doubt thought it was a case of placenta prævia threatened with miscarriage), he ordered some medicine to quiet her, then left and did not return.

She said she never felt the child move after this. Her abdomen began to enlarge gradually from this time until I paid my first visit. Though she felt very weak she frequently went about

the room. During this time she was always annoyed by a slight vaginal discharge which was very offensive.

Upon examination per vaginam, the external os could be easily felt; it was soft and patulous, and the neck seemed nearly obliterated. There was a slight moisture in the vagina, due to the presence of bloody mucus, which had a very offensive smell.

The uterus was quite movable and was not adherent to the surrounding tissues. There was a general enlargement of the abdomen, and upon percussion a very marked dullness, extending from the left iliac region in an oblique direction to within two inches of the lower border of the liver, having a general width of about two and one-half inches, could be easily detected. A hard tumor about four inches in diameter, could be detected in the left iliac region. All other regions of the abdomen were quite tympanic and very tender to the touch.

The sounds of a fœtal heart, although carefully searched for, could not be heard. She was quite feeble and weak, and the pulse was very slow and easily compressed; heart-sounds somewhat muffled. As she was suffering a great deal of pain, I ordered the solution of morphia, that Dr. Robinson had prescribed, continued. I called regularly every day but could discover no new symptoms, and she grew gradually weak till April 5, when she died.

Assisted by Dr. W. B. Conery, on April 5, a few hours after death, I made a post-mortem. The cavity of the abdomen was opened by a succession of careful incisions carried from the lower end of the sternum to the symphisis pubis.

The child's head was found resting upon the intestines immediately below the stomach, the right arm drawn in a flexed position with the elbow resting on the anterior surface of the womb; the head, neck and right arm being entirely outside of the cavity of the uterus. A rent in the fundus of the uterus still grasped the child around the left side of the neck and under the right arm.

The smell of the escaping gas was so offensive that it was with diffculty that we could proceed. The child as well as the uterus was in such a decomposed condition that we could not remove them intact from the abdominal cavity. When the child was lifted up the right foot was seen protruding through the internal os and engaged in the neck.

This was certainly a most interesting case, and could be none other than a rupture of the uterus during the eighth month of

gestation, which did not prove fatal to the mother till the time arrived when she ought to have given birth to a matured child.

The cause of the rupture was very probably due to the violent muscular movements of the child, together with a weakened condition of the uterine walls, superinduced by her jumping up suddenly to catch the little three-year old child.

The child no doubt died shortly after its partial escape into the cavity of the abdomen, or when she felt the "giving way" sensation, and the fluttering sensation was its death struggles.

It was plainly shown by our post-mortem that there had been an effort on the part of the womb to expel its contents, from the fact that the foot was found engaged in the neck, but as the head and arm had been caught in the rent by the contracting fundus, it was impossible for it to accomplish its purpose, and labor ceassd. Just at this time would it not have been eminently proper if the physician could have recognized her true condition and performed Cæsarian section and have at least tried to save the mother's life?

Translations.

Article IV.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Sudden Death During an Attack of Hepatic Colic.—Prof. Brouardel has related an interesting case of this kind. A young woman, aged thirty, well built, after a brisk walk as she was about to enter a car, drank a glass of syrup and seltzer water and a few minutes after was taken with violent abdominal pains. When she arrived at her destination she could not proceed home but entered a hotel. A physician soon arrived and diagnosed hepatic colic, saying it would soon be over. Nevertheless, after several exacerbations of pain the patient suddenly died in the night ten hours after the first seizure. A post-mortem examination was made the only lesion found being an ordinary sized calculus in the ductus choledochus, sixty-one in the gall-bladder and a sub-mucous œdema of the duodenum and jejunum and a hemorrhage uniformly infiltrating the paryncheme of the pancreas. Chemical analysis demonstrated the absence of any poison.

Death, then, was only attributable to the hepatic colic. Cases of this kind are very rare and imperfectly known, although all authors seem agreed in accepting the possibility of such an abrupt termination. Charcot, noting the constant lowering of the pulse, in hepatic colic, attributes this not to the violence of the pain which is often not very great, but to a reflex action determined by the irritation of the semi-lunar ganglia and reflected upon the pneumo-gastric. The diminution of the pulse can go on thus until a mortal syncope supervenes.

At all events, cases of sudden and rapid death, without perforation or other complications, are very rare. Portal mentions two cases. Curry and Boudet have noted two analogous cases;

Durand-Fardel mentions a similar one occurring in an old woman; Charcot mentions a case from the *Medical Times* of a woman aged thirty-three, who had had several attacks of colic and syncope. These are about all the cases of a similar nature, recorded; they differ in certain points clinical and anatomical from that of M. Brouardel. At all events, in a medico-legal, point of view it is interesting to call attention to a cause of sudden death hitherto but very little recognized.—[*Jour. de Méd. et de Chirurg. Prat.*

EXAMINATION OF THE EAR.—M. Gellé has made an experiment of great clinical value; it permits, in certain cases of defective hearing, to locate the lesion and to recognize abnormal action of the stapes and of the apparatus of accommodation. A vibrating tuning fork is placed upon the frontal eminence of the patient; in his ear is fixed a tube of rubber whose other extremity, closed by a diaphragm of gold-beater's skin is placed to the ear of the observer; this otoscope has inserted at its middle an insufflating bulb.

The apparatus being arranged, the vibrations of the fork follow the cranial bones and are transmitted to the tympanic membrane. The patient perceives a sound which is transmitted by the vibrations of the tympanic membrane and of the air of the tube to the ear of the observer. If now, by the aid of the bulb, the tension in the tube be augmented, that is, if the membrana-tympani of the patient be compressed, his accommodative apparatus, which has lost its integrity, will perform its functions abnormally, the stapes will penetrate more or less in the fenestrum ovale and the sound of the tuning-fork will no longer be the same for the patient and for the observer; the lesion can be immediately localized in the apparatus of accommodation.—[*Progrés Médical.*

CÆSARIAN OPERATION FOLLOWED BY PORRO'S.—M. Guichard, of Angers, had a patient, aged twenty-five, who measured 1.08 metres in height. She presented a considerable xyphosis, occupying chiefly the lower portion of the dorsal region. Having arrived at term, the uterus had fallen downwards and forwards forming a large pendulous tumor, reaching nearly to the knees. Vaginal examination, which was very difficult, showed an oblique oval narrowing of the superior strait, but the most con-

siderable obstacle existed at the inferior strait whose transverse diameter measured only *four* centimeters.

The surgeon performed the cæsarian operation, extracting a well-formed child, which lives. Immediately after a part of the uterus was excised and the stump sutured to the abdominal wall. The antiseptic method was rigorously followed. The next day a small amount of hemorrhage necessitated placing an elastic ligature about the pedicle. The patient died on the third day with symptoms of peritonitis. The skeleton of the woman is remarkable for the great curvature of the spinal column and the form of the small pelvis.—[*France Médicale.*

PARASITES OF MALARIA (IMPALUDISME.)—M. Lauveran called the attention the of the Sociètè Mèdicale des Hôpitaux to the fact that he had shown the presence of parasitic elements in the blood of malarious subjects. In Algeria, his autopsies demonstrated merely the constant lesion to be the presence of pigmented elements in the blood. As to their origin, must it be admitted that they were due to the destruction of red blood-corpuscles? Microscopical examination demonstrated, besides the melaniferous leucocytes described by Frerichs, other pigmented elements whose parasitic nature could not be doubted. These exist in three forms and are possessed of complex characteristics.

The researches were carried on for two years. It was observed that quinine medication caused the disappearance of the pigmented elements. In malarial cachexia, these elements only exist in the capillaries of the liver and spleen. In the fevers proper, the general circulation; to find them it is only necessary to examine the blood obtained by pricking the end of a finger of the patient. M. Lauveran seems to be convinced of the living nature of the elements he has observed and described; and appears astonished at the objections which have been made.

As to the pathogenetic rôle of these parasites, he formulates the following propositions:

1. Parasites always exist in the blood of those affected with malaria, at least, in the capillaries of the spleen.

2. The number of parasites is in proportion to the gravity of the affection.

3. It is at the beginning of attacks that we find the parasites in the greatest number.

4. Never are these parasitic elements found in other diseases.

5. These elements disappear rapidly after the cure of the attack by quinine medication.

6. Experimental inoculations are fruitless because malarial fever is not inoculable in animals.

The writer has been unable to determine by what means the parasites enter the system, but he thinks that the theory rests on a solid base.—[*Paris Médical.*

ABSORPTION OF SEQUESTRA.—M. Vrignal has lately made a series of experiments on the absorption of sequestra. He has determined that a sequestrum covered with pus will not be absorbed, whilst one enveloped in granulations will be. A fragment of bone (a bone peg) being driven into the tibia of a rabbit was almost entirely absorbed.—[*Gazette des Hôpitaux.*

EXPERIMENTAL PHYSIOLOGY.—Brown-Sequard has made a series of sections at the base of the brain after which excitation of the parts situated above the sections determine movements either of the same or of the opposite side. These phenomena are not only produced by galvanization but by any mode of excitation.—[*Ibid.*

IODOFORM CRAYONS.—E. Boeckel employs, for fistulous tracts, a crayon composed of idoform, 1 part; and gelatine or cocoa butter, 2 parts. To have them less soft use idoform, 8; powdered gum arabic, 1.5; gum tragacanth, 0.5; mucilage, q. s., to make a mass such as used for pills. This is then rolled into cylinders. To attenuate the penetrating odor of the iodoform, add one drop of oil of bergamot for every 10 grains of iodoform.—[*Gazette Médicale de Strasbourg.*

Article V.

FROM THE ITALIAN.

Charcot on Spinal Localizations. (Paris 1878-1880.) Review by the Milan Hospital Gazette. [Translated for the Journal.] From *Il Pisani, Sicilian Gazette.* By Joseph Workman, M. D., Toronto, Canada.

(CONTINUED.)

The reason of these ascending and descending degenerations is the same as that found by Waller for degeneration of the anterior and posterior roots of the spinal nerves, that is to say, their separation from the respective trophic centres which for the anterior roots are the motor cells of the anterior cornua, and for the posterior are the corresponding intervertebral ganglia. Now, the fibres of the fasciculi which degenerate from above downwards, before the point of lesion, are comparable to the centrifugal nerves going out from the anterior roots of this number and are; 1st the pyramidal fasciculi composed of fibres whose trophic centre should be in the pyramidal cells of the grey cortex of the rolandic region: 2nd, the short fibres of the lateral fasciculi, whose origins are placed from above downwards in diverse points of the spinal grey centre. On the contrary the the fasciculi which degenerate from below upwards, are comparable to the posterior roots, whose trophic centre is peripheral. Of this number are: 1st, the cerebellar direct fasciculi, whose trophic centre is in the medulla itself, whilst their terminal centre is in the cerebellum; 2nd, the fasciculi of Goll, whose trophic centre occupies the grey substance of the inferior region; lastly, the same interpretation is applicable to the short commissural fibres of Burdach, which likewise degenerate from below upwards.

These facts have been confirmed by the researches instituted. by Schiefferdecker on 100 dogs on which Goltz and Freusberg had cut transversely the medulla spinalis in correspondence with the twelfth dorsal vertebra which operation some of them survived several weeks, and some of them even a few months.

3rd Group. *Degenerations secondary from peripheral cause.* These reside in the posterior fasciculi of the medulla spinalis. The examples noted up to the present are only five or six, but the point of departure of this special lesion should always be regarded as the nerves of the corda equina or better their posterior roots. Having briefly brought to notice the structure of the medulla spinalis as results from the knowledge of normal and pathological anatomy and the physiological facts showing that the transmission of voluntary incitations is effected by the pyramidal fasciculi (Woroschiloff) and that the brain exercises a moderating influence over the spinal reflexes, the author proceeds to describe the general semeiology of secondary degenerations of the pyramidal fasciculi.

The outer face of the lenticular nucleus, chiefly in its anterior third, is but very laxly united to the external capsule: a sort of virtual ventricle exists there: and there, as Gendrin had observed, the hemorrhagic focus commences to be formed in the greater part of the cases of cerebral apoplexy. To this same region belong the nutrient arteries (terminal), whose lesions in a certain manner prepare intra-cephalic hemorrhage (miliary aneurisms). By the breaking of any of those arterioles the blood is diffused into the above named virtual ventrical; in this manner are formed those flattened foci, which, when the blood has been reabsorbed, are presented under the form of a linear, ochry cicatrix limiting the external borderof the lenticular-nucleus.

Now, when the above focus is yet recent, if the hemorrhage be even a little notable, it must necessarily force the grey nuclei towards the ventricles, by reason ef the greater resistance offered by the cranial wall at the part of the insula. In this case no important part remains destroyed: the internal capsule is only mediately compressed and despite the intensity of the first symptoms (shock), if the patient has overcome them, he may recover, that is, he may regain, sooner or later the quasi-integrity of his movements.

But the focus may enlarge, and extend itself according to the direction of the arterioles, cut transversely the internal capsules, and penetrate the lateral ventricle (?)—ventricular cavity. Such cases are almost always lethal.

But though the ventricular inundation has not taken place, and the fibres of the internal capsule only have been lacerated, and a greater or less pyramidal portion of it is interested,

the integrity of movements has been definitely compromised, because a descending spinal degeneration necessarily follows such a destructive lesion.

It is, then, possible clinically to recognize, from certain characteristics, in an individual seized by a hemiplegia of fourteen or fifteen days past the fact that the pyramidal fasciculi have been destroyed at some point in its path, or in other terms, is secondary degeneration revealed by means of symptoms proper to it? Late contracture in hemiplegia is pathognomic of such a degeneration, but it usually is decisively manifested only towards the second or third month after the attack; it depends, according to Charcot, on an exaggeration of the muscular *tonus*, the spinal reflexes. Other symptoms, not spontaneously manifested, but which may be provoked by appropriate manœuvering, reveal exaggeration of the spinal reflex a considerable time before contracture appears and they hence also reveal, with almost absolute certainty, the anatomical condition sought for.

These symptoms are, 1st, the spinal trepidation or provoked spinal epilepsy,the phenomenon of the foot (Fuss phenomenon) of the German authors, clonus of the foot. Here is what it consists in. When the lower paralyzed limb of a hemiplegic is raised by placing one hand under the ham so that the leg of the patient is left to itself, if with the other the point of the foot be briskly raised a series of shakes is immediately provoked the assemblage of which constitutes a sort of rythmical movement,a tremor with oscillations more or less regular or persistent. Ordinarily,this is not manifested in the normal state. According to Berger it is rendered more intense by the use of strychnine and more attenuate by that of opium. An analogous phenomenon is sometimes produced when the hand of a hemiplegic is briskly elevated by the points of the fingers. These patients frequently also, by raising the paralyzed arm experience a trembling similar to that produced in the lower limb in the like manner. But the phenomenon of the hand, provoked or spontaneous, is much rarer than the corresponding one of the foot.

2nd, The tendon reflexes (Westphal, Erb). The better it is studied, the more easy is the provocation of these phenomena; it is known under the name of patellar reflex, reflex of the rotular tendon, the phenomenon of the knee, *clonus genu*. It is brought out in the following way: The limb desired to be explored is held up by the left hand of the observer placed under

the ham. With the cubital margin of the right hand or better with the percussion hammer of Stloda a slight blow is given on the centre of the rotular tendon. Almost immediately after the blow,the leg of the patient springs up it rises more or less briskly describing a trajectory more or less extended according to the nature of the case: it falls back very soon after, sometimes however, a single blow is followed by two or three successive oscilla tions; this is the highest degree of intensity that the phenomenon can reach. It also is rendered more intense by the use of strychnine. Other important physiological conditions of this phenomenon have been studied by Ischirjew, by the graphic method and by means of vivisection of rabbits.

Strichnia augments the contractions and can even make them appear in hemiplegics (Fouquier); a similar effect may be produced also by wounds and by faradizations applied to the paralyzed limb. Hemiplegic contracture ordinarily or when it arrives spontaneously, is not established till about the middle of the second month, sometimes later rarely sooner. It does not show itself briskly (bruscamente) but comes on little by little and is in the outset transitory. Usually it occurs first in the upper limb then extends to the lower one and also to the face. In the upper limb flexion predominates; in the lower, on the contrary extension. The shoulder is now lowered, and again elevated, but the arm is always laid over the thorax, from the contraction of the pectoral muscle. The elbow is in general semi-flexed; the forearm is in pronation and the hands are closed. Sometimes however, there is flexion with supination; sometimes extension with pronation or with supination. As a rule the lower limb is rigid in extension; the foot then takes the attitude of varus equinus; walking is yet possible. The developement of contracture in the flexor group of the lower limb is very rare. The thigh is then flexed on the pelvis, the leg on the thigh, and the heel touches the nates. When the contracture is bilateral, walking becomes quite impossible. From contracture on the face, the labial commissure is raised on the affected side; the naso-labial sulcus is deepened the eye seems sometimes smaller than that of the sound side; at first view we might believe in an alternate paralysis.

The limbs in a determinate, or at lenght an almost definitive position, are in such a state that the observer who wishes to

move them, finds a resistance more or less pronounced sometimes almost indomitable, in whatsoever direction their displacement is tried; hence the acquired conviction that the antagonistic muscles are contracted to the same degree. This character distinguishes the contracture of hemiplegics from paralytic contractures, or those of adaptation, produced by the tones of the muscles antagonistic to the paralyzed and atrophied ones; the latter being deprived of tonicity and voluntary movement, do not oppose the resistance when it is attempted to establish momentarily the normal attitude.

Article VI.

FROM THE PORTUGUESE.

Study of the Etiology and Nature of Beriberi. By Dr. A. Pacifico Pereira. Translated from the *Gazeta Medica da Bahia*, for the Journal. By Joseph Workman, M. D., Toronto, Canada.

(CONTINUED.)

In order to obviate the inconvenience caused by evaporation of the serum, I many times made examination in the humid camera of Ranvier and Recklinghausen, maintaining the preparation in the normal temperature of the blood. In the majority of the cases, and especially the more severe, the globules were discolored, they did not gather into beady clusters except in very small number; they presented different sizes, being in general much less than that of normal blood; these forms were variable, many being in transition between discoid and spherical; many of them had their surfaces covered with salient spiculæ, and a great many presented protoplasm full of small granules. It is true, that in the humid camera this alteration in the structure of the globules was not so generalised, but it was still manifest, and, as a general rule, so much the more in proportion to the advance of the disease.

It appeared to me, from the frequent observations which I made, that the loss of that property which the red globules possess, of becoming clustered as bead-rolls, was due to the morphological alteration suffered by them, passing from a bi-concave to a bi-convex disc, or from an ovoid to a spheroidal form, suggesting the idea that in this disease the photoplasm of the globule differs in its physico-chemical constitution, and becomes changed in structure and form.

These alterations in the form of the globules, as well as the absence of the tendency to beady clustering, are not peculiar to beriberi. In examining the blood of different individuals under various diseases, I have observed the same defect of clustering of the globules, and I have noted morphological altera-

tions similar to those met with in the globules of beriberi, in cases of puerperal fever. Similar alterations have been noted by pathologists in the blood of persons attacked by infectious diseases,—true pyrexias,—in no way resembling in their march beriberi, which is a disease of apyretic character. The reflexions suggested to us by this observation must be reserved for a subsequent article.

The number of the white globules in the blood of beriberics is generally greater than that of the normal proportion. In some cases already advanced, and of chronic progress, I have found them above 5 per cent. In others the red globules were so discolored, and presented in so great a number altered in forms that it was difficult to distinguish them from the white globules, which thus appear in exaggerated proportion. In many cases the white globules presented a granular alteration of the protoplasm, which was clearly visible with a magnification over 1,000 diameters.

The number of the red globules is variable, but as a general rule, hypo-globula obtains in beriberics. I have examined the blood of many individuals in a state of sound health, and have compared it with the blood of beriberics. Computation of the globules has shown me, in the first place, that the globular richness of the blood is sensibly diminished in this climate. In my own person I had the opportunity of observing the difference produced by climatic action, by examination of my blood after a year's residence in central Europe, and by examination a year afterwards in the State of Bahia. In the latter the computation of the red globules gave a difference of over 500,000 globules in each cubic millimeter.

In general the number of globules in beriberi is below 3,500,000 per cubic millimeter; in individuals apparently sound, I have seen it 2,000,000; according toDr. Pedro de Magalhaes, the figure descended to 1,358,900 in cases observed by him. This distinguished colleague proceeded in Rio de Janeiro in similar examinations of the blood of beriberics, and he found, in many cases, the number to be from 2,396,800 to 2,782,000, and in some cases 3,000,000 and over. In forty-five cases of beriberi, in which I proceeded according to the process of Malassez-Potain, in numeration of the globules, the number of red globules varied from 1,200,000 to 3,000,000 in each cubic millimeter of the blood. It was in the chronic form of the disease

that hypo-globula was most manifest, and in these cases convalescence brought a notable augmentation in the globular richness of the blood.

In Itapharica, (a few leagues from the city of Bahia,) where beriberics are generally treated, I observed in one case, after thirty days of convalescence, a difference of 400,000 red globules in each cubic millimeter of blood.

Besides these morphological and quantitative alterations of the blood, I observed, in the frequent examinations made by me, an element which is not normal in the blood. In a great many of the cases, over sixty, I observed the existence of micro-organisms, in large number, sometimes grouped in small colonies, or again isolated among the globules. These micro-organisms at first appeared to be greatly diminished fat globules, not only from their aspect, but also from their size; I could not however, make their exact measurement, but I supposed it to be about twenty times less than that of a globule of blood. With a magnifying power of 1,200 to 1,500 diameters, (the objective of immersion 12, of Hartnack) they are perfectly appreciable as spherical organisms, presenting themselves now in small groups, or again isolated, and endowed with self movements of rotation and translation. Those which were isolated were always possessed of greater vitality and they moved actively and incessantly in the field of the microscope, and showed that their rapid and continual movement of translation was always accompanied by a movement of rotation of the corpuscle around its own axis. Besides these two movements, it appeared that the corpuscle, from time to time, dilated and retracted itself, so as now to appear as a brilliant point, perfectly spherical, and again as an ovoid, with a clear centre and very obscure extremity.

At some points these microbias presented themselves collected in small groups, from which, from to time, some of them detached themselves, and moved about isolated in the field of the microscope. Some of my distinguished colleagues, as Drs. Silva Lima, Ramiro Monteiro, Maia Bittencourt, Victorina Pereira and many students of medicine have had occasion to see them several times.

Proceedings of Medical Societies.

Article VII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, April, 15, 1882.

Acne Vulgaris. By A. H. Ohmann-Dumesnil, M. D.

Mr. President and Gentlemen:—My object has not been to present to you anything new or startling upon this subject, but rather to endeavor to give the brief outlines of the diagnosis, etiology and therapeutics of this disease. To enter fully and minutely upon this task would demand more time than you can give and an amount of labor which the practical ends for which this paper is presented would hardly justify. Should my hearers recognize, here and there, some of their old friends somewhat disguised, they may consider me under obligations to the proper source, as a due regard for the importance of the subject has prompted me to look up a few of the leading authorities on diseases of the skin with the reward of having both profited by the reading and of having derived great pleasure in so doing.

Acne vulgaris is perhaps an affection that is one of the most common and frequently met with among the dermatoses and, yet, its successful treatment is far from being a settled fact. Statistics, relative to the comparative frequency of acne, are not very reliable as they are gathered from the dispensary and private practice of those who make the treatment of skin diseases a specialty, and it is a well-known fact that a large proportion of those affected with acne resort to nostrums and quacks or to the general practitioner for treatment; and, being generally unsuccessful in obtaining relief from these sources, they abandon all further efforts and thus fail to be observed. Of course, a small portion of these, in whom the disease takes on an aggravated form, have recourse to the dermatologist and it is these whom we find recorded. So that it follows that the figures given fall

far below the actual number. Imperfect as these statistics are, however, they cannot fail to impress every one with the fact of the great prevalence of acne. The following are some figures taken at random. In the report of the Committee on Statistics of the American Dermatological Association,[1] presented September 2, 1880, we find that out of a total of 11,047 cases of skin disease, 685 or 6.2 per cent. were cases of acne. These were divided as follows: Boston, 267; New York, 160; Philadelphia, 66; Baltimore, 28; St. Louis, 34; and Chicago, 130. That these figures are very imperfect can be seen at a glance but even 6 per cent is no mean figure.

H. W. Stelwagon,[2] of Philadelphia, records an analysis of 715 consecutive cases of skin diseases, observed at the clinics of the Philadelphia Dispensary for skin diseases. Of these 35 or 4.9 per cent. were cases of acne; and, in 1880, there were 20 cases or 3.1 per cent. of the total number of cases.

Observing these figures critically and making all due allowances for the other skin diseases but imperfectly recorded, I think that a fair estimate of the number of acne cases is 15 per cent. of all skin diseases. This is a low estimate, but it is sufficiently high to show the importance of the subject of this paper.

Besides, men and women, affected with this disease, are often disfigured by it and cannot obtain relief, in many cases, either because they have not applied to those competent to give proper treatment or, having done so, the disease has acquired such a chronicity that it requires a great deal of time and patience to eradicate it; perhaps more patience than patients are generally ready to display, however willing they may be to sacrifice time.

The thousands afflicted with acne never seek relief and it is only the few who have time, patience and the necessary moral courage who apply for treatment and who persist until a cure is effected, or obtain such relief as is, to some extent, satisfactory.

The literature of this subject is not very abundant and is all alike save in some points connected with treatment and there it is that we see how little is really known on this subject.

DESCRIPTION AND DIAGNOSIS.—Perhaps the best definition of acne vulgaris is that given by Duhring, that it is "an inflam-

1. *Archives of Dermatology*, Vol. VII., p. 171.
2. Philadelphia *Medical Times*, Vol. XII, p. 411.

matory, usually chronic, disease of the sebaceous glands, characterized by the formation of papules, tubercles, or pustules, or a combination of these lesions, occurring for the most part about the face."[3] The lesions are dark red, violaceous papules which do not itch and very seldom pain even on pressure. They occur upon the face, neck, shoulders or arms. Occasionally the papule becomes a pustule, a small yellow point appearing at its apex and enlarging.

Acne vulgaris is easily diagnosed and there are but few other skin diseases with which it might be confounded. It may be distinguished from eczema from the fact that the latter itches intensely, occurs in other parts of the body, spreads from a center and is not confined to the sebaceous glands. It differs from pustular syphilodermata and from so-called syphilitic acne because these latter always give a history of syphilis and, although usually attacking the forehead they are not confined to the sebaceous follicles but may involve any part of the skin. Superficial lupus might be taken for acne, but papules of the latter run their course in from one to four weeks whilst those in lupus may persist for months. In acne the lesions are scattered and with a tendency to be symmetrical, each papule or pustule being confined to a sebaceous follicle, the disease being an affection of the sebaceous glands. It has no tendency to spread and rarely exists on different parts of the body at the same time. It never occurs upon the palms of the hands or soles of the feet.

It generally makes its appearance at the commencement of puberty and, if left to itself, may spontaneously disappear at the 25th or 26th year or may not do so until the 42d or even later. It attacks males and females alike and is exceedingly inclined to chronicity. Cases are unusual in which we find acne in children, before puberty or, in females, after the climacteric.

There are three principal varieties of acne vulgaris, viz: acne papulosa, acne pustulosa and acne artificialis. These are all the forms to which the many varieties of acne, formerly described, may be reduced.

Acne papulosa is the variety that is the least developed and consists of small papules that are acuminated and often miliary. The individual papules run a short course, but are constantly

3. Diseases of the Skin, 2d. Ed. 1881, p. 250.

reappearing, so that the patient can never claim total immunity. This is the form that most closely resembles acne rosacea but can be readily distinguished from it because the inflammation of the skin is not so diffuse and the papules do not tend to group together in so great a degree. This variety—acne papulosa—is found more often upon the face and is more common in young persons than in adults. It frequently happens that the opening of the gland receives a deposit of foreign substances, such as dirt or becomes prominent as a whitish dot, from the plug of sebum contrasting with the red hue of the papule and in such cases it has been denominated *acne punctata*. This condition must not be confounded with comedo, which it closely resembles. The fact, however, that in comedo, there is no inflammation of the adjacent tissues, no suppuration of the papules and no pain whatever, will be sufficient to distinguish between the two. Comedo is often present in acne and will, as a rule, yield to whatever treatment may prove efficient in the latter; or, if it persist can be attended to separately and generally with success.

Acne pustulosa is by far the most common variety and that which causes the most inconvenience, and, on whose account, aid is most frequently sought. It is the typical form of acne vulgaris and consists of papules varying in size from a pin-head to a split pea or becoming even larger, at times. The papules are either acuminated or rounded and always suppurate. The point of the papule becomes of a deep yellowish tinge, showing the presence of pus, and then it may spontaneously discharge its contents, or a retrograde process is taken on and it simply dries up. Both courses occur pretty frequently, the former being often followed by consequences which are anything but agreeable to the subject. This is due to the burrowing of the pus which leaves a depressed scar or pit much resembling that caused by a small-pox pustule. On the other hand, many suppurate quite freely without ever leaving a mark to show their former presence.

When the pustule dries and the scab separates, it shows its former presence in the form of a macule which persists for some time. The pustule, when fully developed, generally has a thickening about the base which is more or less well marked, being caused by the exudation of inflammatory products. When this induration at the base is very marked, the disorder is called *acne indurata*. This hardening is sometimes the most prominent fea-

ture and then there is no suppuration, but the formation of infiltrated tubercles which are very displeasing to the sight and annoy the patients very much.

There are two results, affecting the sebaceous gland, which follow this variety of acne. They are atrophy of the tissues about the wall of the gland forming a pit-like depression; and hypertrophy of the connective tissue. The former is more common than the latter, at least so I have found.

Acne artificialis is the third variety and is so called from the mode in which it is produced, rather than from anatomical appearance. Some soaps, coal-tar and other similar irritants applied to the skin will produce it; also, the internal use of certain drugs, which manifest their constitutional effects, among other ways, by an acneiform eruption. Bromine and iodine are very apt to produce acne which is easily distinguished from the other varieties both on account of of its etiology and the greater rapidity of its evolution. It is sometimes the case that acne artificialis is of so severe a nature that it involves the destruction of the glands themselves, in the suppurative process which takes place.

This is, sometimes, also the case in acne pustulosa but is not common. The consideration of acne artificialis will not be taken up, since it is not of the same importance as the other varieties; and, besides, the etiology being known, the treatment of this form is of the simplest and need not even be mentioned, its proper place being in the class of medicinal eruptions.

ETIOLOGY.—This is perhaps the most difficult part connected with the subject with the exception of the treatment. The Vienna school or that of Hebra, contends that the disease is a purely local one, owing its origin to local causes. The French school, or that of Alibert, on the other hand, contends that it is a constitutional disease and that its causes are constitutional or such as effect the whole economy. The American school, if I may be permitted to designate one, recognizes both local and general disturbances as potent factors and thus has attempted to reconcile the two extremes.

The causes which give rise to acne are varied and numerous Acne has been called a disease of youth and this is probably because it is so frequently noted at the approach of puberty. At this period the whole body is undergoing a change and the sebaceous glands participate in the general excitment. In the

majority of instances, this change causes a revolution in the cutaneous system and an eruption of acne makes its appearance. Masturbation has been noted by some as an exciting cause. Local causes are many, any irritant to the skin being liable to induce an acne wherever sebaceous glands exist.

The persons most generally affected are the light haired ones their skin being more tender and, as a rule, not as well nourished as that belonging to persons of a dark complexion. The scrofulous are very liable to acne and when it occurs in them it almost invariably becomes chronic and exhibits such a character that it has been named *chachectic acne.* It is of the pustular variety. Similar to this condition are some occuring not infrequently as causes and which are sometimes overlooked when a critical examination is not made. These are anæmia and chlorosis, two conditions which are quite often concerned in bringing about functional disturbances of the sebaceous glands.

The most prolific source of acne is without doubt derangements of the alimentary canal. It will be found, upon examination, that nearly all cases of acne vulgaris are accompanied by some disturbance of the gastro-intestinal mucous membrane. Disturbances of the stomach such as dyspepsia, may act as fruitful sources and a careful examination of the condition of the viscus should be made. Indigestion is another cause no less important, than the last. The most important, because the most common, is constipation. This I have always met with in cases of acne and it is generally of an intractable character not easily overcome and with tendencies to recur again and again. Nearly all authors are agreed upon the great importance constipation holds as an etiological factor in the production of acne; and, when it is attributed to other causes, it will frequently be found as an accompanying condition and deserves marked attention as these derangements of the bowels are by no means as insignificant as they might be held.

In females, there is a series of affections which exert an influence that is of the highest importance, and which it would be the height of neglect to overlook. It is on this account that, in women, the manifestations of acne may occur at any time between the period of puberty and that of the menopause, in other words, during active uterine life. The disturbances, that the uterus is subject to, are regarded as causes of acne among these being such difficultly relieved conditions as dys-

menorrhœa, amenorrhœa, flexions, endocervicitis, metritis chronica and a number of chronic affections with which women are afflicted and which drive them to fill the gynæcologist's ante-room.

There are other diseases which, though not so often observed in connection with acne vulgaris, still occasionally act as exciting causes of the eruption. These are renal disorders. In the majority of cases, the original lesion is of so serious a character that but little attention is paid to disorders of comparatively so little importance as acne; but if carefully observed, it will be found that, as the kidney trouble improves, so does the eruption. This is the more readily explained when we consider the vicarious relations the kidneys and the skin hold to each other and how easily affected either may be when forced to assume a part of the duties properly belonging to the other.

It may be stated, in general terms, that any cause which tends to disturb any important excretory organ or the ecomomy at large, will find, at once, a reflex in the skin, the result being some lesion of the organ, and not infrequently manifested in the form of acne.

Again, cases are found in which acne is apparent, and yet examination does not reveal any disordered or diseased condition either general or local. These are, by no means rare; and it may not be improbable, as held by some, that the vasomotor nerves, of the vessels connected with the sebaceous glands or with the skin itself, are not in a normal condition, or, at least are not performing their functions in a proper manner and, by this means, aid any ordinary irritant in quickly bringing about the condition which gives rise to acne.

At the meeting of the French Association for the Advancement of Science, held at Reims, in 1880, Dr. Gentilhomme[4] held that acne facialis, in certain cases, has for principal cause the presence of a parasite—the demodex folliculorum—in the sebaceous glands. The destruction of this parasite, he says, is immediately followed by the disappearance of the pustular eruption and redness of the skin. Its total extirpation is possible, but can only be obtained after very long and careful treatment. The survival of a few parasites or the escape from

4. *Gazette des Hôpitaux*, No. 106, 1880.

destruction of some ova, explain the facility with which a relapse occurs after an apparant cure.

This is a revival of a doctrine formerly held and which has been long since rejected, because the parasite mentioned may be found in any of the sebaceous glands of healthy persons, if carefully looked for, and is not always found in acne papules and pustules. It has been pronounced entirely innocuous,[5] and the theory has been here given for what it is worth.

Formerly, it also was thought that a diet containing a large amount of fatty matter was an exciting cause, but this opinion has been largely abandoned from the, fact that when totally abstained from, no improvement is noticeable, and also, because many, who were subject to the disease, did not consume more than an ordinary amount of fats. Moreover, many patients far from being injured or having the eruption aggravated, actually improve and the symptoms subside upon a regular ingestion of cod-liver oil. So that fats may be considered out of the question as etiological factors in this affection.

PROGNOSIS.—The prognosis in this disease depends upon a variety of circumstances—the age of the patient, the cause and the condition of the affection. In the young, it is invariably good as the tendency of the affection is to recovery; the causes are more susceptible of amelioration and the course of the disease is, as a rule, of a more acute character. In middle age and later, the prognosis is good if the acne retains the chief characteristics it has in youth; it is generally very obstinate and requires a much longer time, for treatment and relapses are more frequent and take place more easily. It not infrequently assumes a chronic form or the condition upon which it is dependent may be of such a chronic or intractable character that but a slight amelioration may be expected.

When acne is dependent upon the advent of puberty, its tendency is to get well spontaneously as the functions become more settled and the increased activity of the sebaceous glands subsides to the normal that is to be retained in afterlife. Upon the whole, the prognosis in this disease is far from being satisfactory.

PATHOLOGY.—Although the disease is said to be of reflex

5. Wilson. Diseases of the Skin, 1863, *et al.*

origin[6], the local manifestation originates in the gland itself. There is a deficient innervation, the result of which is that there is a retention of secretion. The plug of sebum is retained in the duct of the gland and soon acts as a foreign body. This induces hyperæmia and blood-stasis and the resulting pressure forces an exudation into the surrounding tissues, especially about the walls of the duct. The connective tissue about the gland soon becomes infiltrated, cells become caught caught in its meshes and a more or less acute inflammation is taking its rise. Duhring[7] says that this inflammation results, sooner or later in suppuration, but cases are seen in which this is not apparent; and, if it does take place it is in the corium and resolution takes place before it can manifest itself. The truth of this can be demonstrated by deeply incising papules when a very small amount of pus will be found at the point of the knife. In other cases, however, this cannot be found at all and the inference is that there is no suppuration, but rather that a retrograde action takes place, through the excitement which has been offered to the nerves controlling the blood-supply of the parts involved, by the pressure exercised by the infiltration.

The usual course is for pus to form and the pustule discharges itself, being followed by a gradual subsidence of the inflammatory condition of the gland, which resumes its normal functions for a time when, the nervous influence diminishing again, a repetition of the process takes place.

The amount of inflammation and its intensity determine the varieties of acne and also its anatomical characteristics, such as induration or hypertrophy. If the exudation is large and is not sufficient to procure a reaction of the nervous influence, eiher one of the two conditions named may follow, the former being the more frequent in occurrence and generally giving rise to the latter.

TREATMENT.—The treatment of Acne may be divided into two parts, the one as essential, perhaps, as the other. They are the constitutional and general and the local or special; and in each one of these, the greatest care on the part of the physician and patience on that of the patient are to be observed, as

6. Piffard Materia Medica and Therapeutics of the Skin. 1881.
7. *loc. cit.*

many good remedies may be fairly and conscientiously tried before an impression is made.

Constitutional treatment is to be directed on general principles and as good a therapeusis as possible should be carried out. Where there is a vitiated state of the system it ought to be corrected. Where constipation exists it should be carefully looked after. Saline laxatives should be given with an occasional small dose of calomel or blue mass and mineral waters should be taben before dinner. Among these are the Ofner Racoczy, Friederichschall, Hunjadi Janos, and many others whose aperient properties are well known. Duhring[8] recommends the following:

℞ Magnesiæ Sulphatis.....ℨjss.
Ferri Sulphatis.....gr xvj.
Acidi Sulphurici dilut.....ℨij.
Aquæ destillati.....ℨviij.
M. Ft. Sol.
Sig. A tablespoonful in a goblet of water two or three times a day.

Should the patient be anæmic or scroufulous, cod-liver oil and good tonic treatment are indicated. Mineral acids especially are good. When iron is given, it should be done sparingly as it is reported by some to excite an eruption of acne; the same may be said of bromide of potassium which is sometimes given as an anaphrodisiac, and iodide of iron as an antiscrofulous which when pushed, often produce the mischief it was intended to repair.

Arsenic was for a time supposed to exert almost a specific influence over acne; but, at present, it is not employed so extensively. It is found of service, at times, in the treatment of the indolent papular form or where the papules are imperfectly developed and is to be given as a tonic in doses of one to three drops of Fowler's Solution two or three times a day after meals.

Gubler, of Paris, and Bulkley, of New York, have highly lauded the treatment of acne punctata and comedo by the internal administration of glycerine in tablesoonful doses three times a day. This method has been tried by others, but they deny its good effects, Taylor laying stress upon the fact of his failure to obtain any success.

Another remedy especially directed to this affection is one not long since re-introduced to the profession by Ringer and

8. *loc. cit.*

others. It is sulphide of calcium, which is to be taken in doses of one-tenth to one-half of a grain four times daily. Its chief value is in the suppurative form. as it seems to have a tendancy to arrest suppuration, making it a valuable remedy in furunculosis. It may do good in acne where there are large pustules forming, but it should be carefnlly watched as W. T. Alexander[9] has lately recorded cases in which the drug produced exactly the effect which it was intended to combat but as the author suggests it may merely be due to personal idiosyncrasy.

Diet and hygiene are two very important factors in the general treatment not only of acne, but of all diseases of the skin whether constitutional or local. Good air, good water, good food, exercise both mental and moral should not be withheld.

Drs. Satterlee and Piffard[10] have employed electricity in acne. It would, I think, prove of service in those cases of apparent good health in which the eruption seems referable to some defect in nerve power or in the lessened nerve stimulation. The Faradic current is used, the positive pole being placed at the nape of the neck and the negative pole to the affected parts. This operation is to last some ten or fifteen minutes and is to be repeated every second on third day. There can be no doubt that this method is a good one as it stimulates the nerves of the skin and tends to bring about a normal state in regard to the functions of the sebaceous glands.

The importance of general tratment cannot be insisted upon too much as it plays a large part in the management and cure of that most troublesome and pesistent affection—acne vulgaris.

Local Treatment is of the most varied character, being in the main either stimulating or soothing. The mainstay and sheet-anchor in acne is, beyond doubt, sulphur and its preparations. Erasmus Wilson is credited as being the first to propose sulphur lotion as an application in acne punctata and it is yet regarded as of the highest importance. It is the remedy which is, after all, the safest and most reliable. It is to be used in the form of an ointment or lotion in the proportion of one-half to one drachm to the ounce. The following are the formulæ of three excellent lotions, each one said to be reliable:

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9. Archives of Dermatology, Vol. VIII, No. 1.
10. *loc. cit.*

℞ Sulphuris loti.....ʒi.
Ætheris.....ʒvj.
Alcoholis.....ʒiijss.
M.
Sig. Apply as a lotion. (Bulkley.)

℞ Sulphuris precip.
Potassii bicarb.
Aquæ laurocerasi.
Alcoholis aa ʒj.
M.
Sig. Apply as a lotion. (Hebra.)

℞ Sulphuris precip.....ʒij.
Pulv. Camphorae.....gr. x.
Pulv. tragacanth.....ʒj.
Aquae calcis
Aquae rosae.....aa ʒij.
M.
Sig, Use as a lotion. (Kummerfeld.)

Duhring recommends an unguent to be rubbed in at night which is also useful; it is as follows:

℞ Sulphuris precip.....ʒi.
Glycerine puriss.....ʒss.
Adipis benz.....ʒj.
Ol. rosae.....gtt iij.
M.

James Gage Persons[11] recommends the use of precipitated sulphur in its dry state. It is,to be applied to the face with an ordinary powder puff as face powder is, and, by the addition of a few drops of some essential oil, it makes a good cosmetic. He claims that this is the most rapid in its action. I have employed this method and am well pleased with it, both on account of its efficacy and the favor it finds with patients.

In many indolent cases a stimulating course of treatment will be necessary and washing with sapo viridis with thorough friction of the skin will be found of benefit. The following is also a good stimulant application; take of sapo viridis, alcohol and rose-water, each one part. If not sufficiently strong take of the soap two parts and of alcohol one.

In acne punctata Hillairet[12] recommends touching the points of the papules with tincture of iodine or of cantharides and as a milder stimulant washing with a solution containing water,

11. *British Medical Journal.*
12. *Progrès Médical No. 37, 1880.*

250 parts; borax, 10 to 15; and sulphuric ether 8 to 15. When the skin again becomes normal in its action modify the secretions by means of astringent lotions.

Sulphuret of Potassium is a good local application in a strength of five to twenty-five grains to the ounce. It is particularly serviceable in the papular form. Prof. Hardy, of Paris, combines it as follows:

℞ Potassii Sulphuret.
Tinct. benzoin..... .....aa gr. viij.
Aquae rosae.....℥j.
M.
Sig. Apply night and morning.

Where very active stimulation is required the biniodide of mercury has also been highly spoken of in the strength of five to ten grains to the ounce. Corrosive sublimate is a great favorite with some but it is uncertain in its action. It is given in the strength of one-eighth to one grain to the ounce and its best vehicle is an emulsion of almonds.

Neumann recommeuds mercurial plaster applied on cloths, during the night, for severe cases of indurated acne.

Hutchinson, Morris,[12] Liveing,[13] and other English authors greatly recommend a method which consists in taking a glass rod, dipping it in a solution of acid nitrate of mercury and lightly touching the summits of the pustules, care being taken to use blotting paper to absorb the excess of remedy. No matter how carefully done, it may result in leaving scars much worse looking than the pustules and, on that account, it is not in very great favor.

Besides, we have other local means which are more purely mechanical, or rather surgical in character. The glands should have their contents squeezed out in order to relieve their walls from pressure and the best method of doing this is by means of a comedone extractor.

In sluggish papules accompanied by comedones the dermal curette is of great value, as it brings on a healthy inflammation of the tissues to replace the chronic infiltration. In acute acne indurata scarifications should be made freely and hot water applied to promote the bleeding and relieve the engorgement. This establishes a tendency to resolution.

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12. Skin Diseases, 1880.
13. Diagnosis and Treatment of Skin Diseases, 1879.

When the pustules are large, or when there is a suspicion of pus in a papule, the proper treatment is to cut them open so as to give free exit to the contained pus. If there be a superficial distension of the blood-vessels, it is not only proper but imperative to cut open the papules so as to relieve the vessels. The proper dressings are then to be applied. Where the papules remain miliary they should be opened with a milium needle.

You will find, no doubt, that I have omitted many remedies and methods, but the local measures, in this affection are so numerous and varied that in would be well-nigh impossible for me to enumerate all of them. I have endeavored to give the principal ones.

The following are some of the substances used in the local treatment of acne: Carbolic acid, aconite, chloride of antimony, lemon juice, collodion, chloride of iron, peroxide of iron, cyanide of mercury, potassa, chlorate of potash, borax, talc, iodide of potassium, ammoniated mercury, albuminate of mercury, oil of cade, vaseline, chrysophanic and a host of others.

The treatment depends upon the observation of the physician who must determine whether stimulating or soothing treatment is to be employed and in either case he will only have *l'embarras de richesse.* The surgical methods to be used should never be forgotten, as they are by far the most satisfactory in their results.

DISCUSSION.

Dr. Dickinson.—I remember seeing Dr. Durkee of Boston apply some nitric acid immediately removing the surplus with a piece of blotting paper as was suggested by the doctor this evening.

Dr. Barret.—There is one local remedy omitted in the paper of the doctor which I regard as an important one, and judging from my limited experience in the matter, it seems to me it is much more valuable than any that has been mentioned, unless it be sulphur, the beneficial effects of which are recognized by all practitioners, and that is the local application to the face of hot vapor. I have treated some very chronic cases

successfully by the application of steam to the face. I have never failed to have marked improvement under this method of treatment. Of course, I have not been able to perfect a cure in all cases. The gentlemen can well understand how it should act beneficially whether we accept the theory that the trouble is purely local or take the other view; as we all know the local application of heat and moisture has a decided influence in allaying local inflammation. It stimulates the sympathetic system and contracts the bloodvessels and drives the blood out of the part, just as hot water which is used in gynæcological practice, or a poultice which is used on inflamed surfaces does. When the poultice has been applied to an inflamed surface we find the surface very much whiter and blanched, deprived of its blood, because, the heat and moisture contract the bloodvessels and drive the blood from the part, so in this trouble the application of heat and moisture acts as a poultice and first allays the irritability and relieves the inflammation. I have also had decidedly good results from the use of sulphide of lime but I used it in larger doses than has been suggested by the doctor. I generally use two grain doses three or four times a day and have never observed any ill effects from the remedy in those doses; in fact I think it might safely be given in larger doses still.

DR. JOHNSTON.—I would ask Dr. Dean whether he thinks the parasite is the cause or the consequence of the disease?

DR. DEAN.—I mean to be understood as saying that there is an almost endless number of causes of acne. It is a disease of the sebaceous glands and of course anything that produces a disease of those glands, whether it is constitutional, or external, may cause acne. If you take a little girl six or seven years old, the face is still perfectly smooth, at seven years you may find a few and by and by as the glands begin to fill we find they become more numerous.

DR. JOHNSTON.—Is this parasite ever found in the healthy sebaceous matter?

DR. DEAN.—I think it is found in the majority—6 or 7 out of every 9 healthy grown persons. It is not found in the new born infant, and not usually found in children of considerable years.

DR. JOHNSTON.—The paper read this evening is an admirable one of the history and the etiology of the disease, but the therapeutics must convince us that our scientific knowledge of the cause of acne is still very meagre, and no better evidence need be presented to the human mind than when a doctor goes forth to cure a disease with some 40 or 50 remedies. He gives his remedy and if it hits the patient the patient goes down, and if it hits the disease, the disease goes down. This seems to be the condition of the medical profession in regard to a number of skin diseases. I asked Dr. Dean if this parasite is found in the healthy sebaceous glane and he says yes, but not in the infant. The glands in children are not sufficiently developed to secrete this matter, and therefore if the food upon which the parasite is to live is not it can not appear; and if it is found in the healthy gland, then we can not come to the conclusion that it is of the cause acne.

SATURDAY April 22nd. 1882.

Metal Spray Producers.

DR. RUMBOLD.—I wish to present for the inspection of the society a metal spray producer which I have recently had made. Most of the members know that since 1866 I have used a glass spray-producer in treating nasal catarrh. During the past few months I have been using metal spray producers, which are equally effective in making applications, and much more durable.

A full set consists of eight instruments: one, throwing a horizontal stream; another, at an angle of 45 degrees upward and backward; another one, that throws a vertical stream; another one, that produces a stream at 45 degrees upward and forward; and another one, that throws a stream a little more elevated than the horizontal stream. These are employed to treat the pharynx, pharyngo-nasal and nasal cavities. The remaining three other instruments are used to treat the larynx: one of them throws a stream downward and backward; one, throws a stream directly downward and the other one throws a stream downward and forward at an angle of 45 degrees. These instruments enable one to apply atomized medicines to every portion of the surface of the nasal and naso-pharyngeal cavities;

so as to clear away the muco-purulent secretion and make the application to the cleaned diseased surfaces.

I prefer the glass instruments, as I can see the medicines, and as I can make them to throw a coarse or fine spray very easily; but the metal instruments are much more durable and likely to become much more populur with the profession.

My spray producers have been used somewhat extensively in various large cities of late years. I have had orders for them from the cities of London, Paris, Vienna, Berlin, Strasburg, Milan and Rome.

I use no brush, no sponge, nor do I use applications of nitrate of silver or caustic. I cannot use the preparations of iron. Everything that I do use has no corroding effect on this metal instrument and is mixed with vaseline.

DR. JOHNSTON.—Do you use carbolic acid?

DR. RUMBOLD.—Yes a very little, so small a quantity that it produces no anæsthetic effect. I have not used the nitrate of silver for many years.

DR. JOHNSTON.—How do you use the vaseline?

DR. RUMBOLD.—I liquify it by heating. It liquifies at about 89° F. A proper temperature to make the instrument is something like 110° F. The vaseline cools in passing through the instrument so that it will be about 100° to 101°, which is very pleasant to the throat, and nasal passages; this is the proper temperature for cleansing the surfaces. Cold sprays will not cleanse.

Throat Cases.

DR. A. GREEN.—As there is nothing before the society I will relate a case. I was called to a patient who was complaining about his throat, and I thought he had diphtheria; although I had some doubt about it. A few days afterward the man felt a little better and came to my office. I examined him and then I saw that it was rather a superficial mortification of the mucous membrane than diphtheria, in fact I can't give it any name. It began a little back of the posterior arches and went as far as the anterior arches; then it was not only the epithelium but the whole mucosa. The inflammation went further and further in spite of all I could do, I used nitrate of silver first, 5-10-20 grains to the ounce; I used quinine, inasmuch as I conceived

it to be of a septic nature, I afterwards used chloride of zinc, 20 grains to the ounce. He commenced to get better and so continued until the whole process ceased. This was the first case of the kind that I had seen. Then lately I had another case in which the inflammation extended from the posterior arches down to the epiglottis. The epiglottis was swollen and it was not possible to get a look at the condition of things. This was a very stubborn case. After a while the swelling of the epiglottis went down and the inflammation subsided. I succeeded at last with the chloride of zinc in this case also. This was a curious case. After the patient recovered a good deal he complained of pain about the site of the glosso epiglottic ligament, and after one side got well the other got troublesome. I suppose it was something of a septic nature although it didn't result in ulceration.

Congenital Cataract

DR. DICKINSON.—The society will remember that last year Dr. Williams related several cases of cataract existing in one family; and I will state that during the week I was called to Illnois to operate on a case of this kind in a gentleman 45 years of age, and I was informed that the same trouble had existed in the case of a brother of his who was over 60 years of age and two other members of the family, brother and sister. The mother of these two brothers and the grandfather also were effected with this trouble. As yet none of the children of this generation have been affected with it.

DR. JOHNSTON.—I read the other day that Dr. Williams stated that strabismus is hereditary. It struck me as being a little singular I saw it reported in the *Clinical Record* a few days ago. I would like to hear the experience of the oculists present on the subject.

DR. WILLIAMS.—That is news to me Mr. President. I didn't state that it was hereditary; and if the doctor will examine the article I think he will find that I said that the predisposition is hereditary, not the the disease itself. We all know that strabismus is dependent for its producing cause on farsightedness, and this farsightedness is hereditary. I didn't say that strabismus itself was hereditary.

DR. JOHNSTON.—I would like to hear the experience of the President on that point.

DR. DICKINSON.—It has not been my experience that strabismus is hereditary. I remember having seen two children who had strabismus one single the other double, they were members of the same family, and none of the other members of the family so far as I could learn were so affected, and so far as known none of the ancestors. I should not regard it as hereditary.

DR. JOHNSTON.—Do you think its predisposing cause is presbyopia?

DR. DICKINSON.—Presbyopia does produce it unquestionably.

DR. WILLIAMS.—Is that hereditary?

DR. DICKINSON.—Very frequently.

Case of Diphtheria.

DR. JOHNSTON.—Some ten days ago I was called to 27th. and Gamble Sts. to see a little girl about eight years old who had been sick some ten days. A very intelligent young physician had been called in and examined the child carefully and come to the conclusion that it was what is called ulcerative sore throat; he scarified one of the tonsils which bled a little; told the mother to give a mild mercurial purgative; ordered a solution of nitrate of silver perhaps about two grains to the ounce as a local application; and gave quinine. This physician told me there was no great excitement or fever. The child was able to sit up at one time and it was not considered dangerous; but for a couple of days it didn't get along very well and the mother becoming uneasy sent for me.

Upon examining the child carefully, I found that the temperature of the feet and hands was somewhat below the normal. I looked into the mouth and saw that the tonsils were swollen a little, not much, there was no follicular inflammation, but the fauces had rather a dark appearance. Without thinking I said to the mother: This is a dangerous case of diphtheria. And so it proved. I didn't change the prescription, but kept up the use of quinine, and occasionally mopped the throat out with weak solution of nitrate of silver. I also gave citrate of iron and quinine every two or three hours. I took the

temperature about ten or eleven oclock in the morning and found that it was about 97° and in the afternoon about 97°. 5, all the time below the normal temperature. Three or four days before death the child had epistaxis; and tincture of chloride of iron was used to check the oozing. It was the adynamic form of diphtheria with a rapid destruction of the corpuscles of the blood. I made no microscopic examination of the blood, but I have no doubt that if it had been examined it would have been found filled with bacteria. Another physician was called in and suggested that the citrate of iron be changed to the muriated tincture to which I had no objection. So far as I could see our remedies did not avail anything, and I came to the conclusion that the destructive process going on in the red corpuscles of the blood, was such that it would not produce sufficient heat to keep the system up to the normal standard of temperature. I would like to know what has been the experience of the gentlemen in regard to whether it is more dangerous for the temperature to fall below the normal than it is to go above it. Very few cases of this disease that have come under my observation, in which the temperature has fallen below the normal, have lived. It seems that the blood is in such a condition that the treatment cannot be brought to bear, so that we can get a normal standard of blood corpuscles.

I want to say I have no confidence whatever in the use of local astringents and so on as applied in catarrh. My friend Dr. Rumbold is a skillful man, but great men sometimes go off into side issues. He says he uses nothing but vaseline in the treatment of catarrh. I was convinced some years ago that the local application of such remedies as astringents etc. was futile and in four cases out of five did more harm than good in children. And why? Because this local disease is only the manifestation of the general disease which exhibits itself here.

Dr. Green.—I didn't hear all of Dr. Johnston's remarks, but I want to make a few remarks on the use of local applications in diphtheria. I think they do more harm than good. If we understand the physiological process that is going on in diphtheria we must come to that conclusion. In diphtheria there is an infitration of the tissues, the whole mucosa, perhaps, and part of the submucous tissue. The infiltration is of such a nature that the capillaries of the part are compressed and the

nutrition is cut off, so that the part is dead. Although there may be no false membrane, there is dead matter. When we see the parient the mischief has already been done. Now what is the danger? The danger is that the system will become infected with the morbid material. There lies all the danger. If you take off what is called the false membrane, it will soon reappear again; if you take it away again it will reappear again; if you leave it alone and it goes away, it will not re-appear in the same place again. If the part is examined we will find that there are little fibres of living matter that keep the dead substance connected with the living and if we wait until the separation occurs there is no harm to the system; but if we use local applications we stimulate the system to take up this dead matter and therein lies the danger. Now the right thing to do is to keep up the vitality of the system and trust that the poison will be thrown off. I don't use these local applications such as nitrate of silver and so on.

Dry Cough from Reflex Irritation.

DR. WILLIAMS.—It seems that some of the members have a prejudice against nitrate of silver; but I must confess that I am a friend to it, and I will refer to two cases simply to show what I mean by a proper use of nitrate of silver. Some time ago I was treating a young lady from Frenchtown; she had strabismus for which I operated, and during the time that I was treating her she became affected with an excessive dry cough for which she was treated for some time by her family physician. She took medicine until she was sick and tired and still didn't get rid of her cough. She occasionally came to the office after the operation and during one of these visits she told me about the cough, and that she couldn't sleep at night. She was going to school and she said she annoyed the whole school. She never raised anything; it was a perfectly dry cough. I suggested to her the propriety of using a strong solution of nitrate of silver on her throat. She consented at once and I dipped a swab into a 30 grain solution of nitrate of silver, pressed the tongue down and swabbed the neighborhood of the epiglottis quite freely. The result was that she slept the following night and had no more trouble from the cough. For several days she returned each day and I repeated the application, making three or four applications altogether. Another young lady had otorrhœa and

came to me for treatment for that trouble from Springfield, Ills. She was troubled a good deal with this same dry cough, and would cough all night so that it was impossible to sleep, and during the violont paroxysms of coughing, she would lose her voice for some seconds. I told her the history of the other case and suggested that possibly it would relieve her. She consented to the operation that I had performed in the other case and it completely relieved her cough. That is what I call a proper use of nitrate of silver; and when it is properly used it is certainly a valuable remedy. Whatever the nature of the trouble was, the two young ladies were completely relieved. I must say therefore that I am a friend of nitrate of silver when it is properly used.

DR. A. GREEN.—Did you perceive any inflammation in the throat?

DR. WILLIAMS.—I didn't see anything at all.

DR. A. GREEN.—Did you examine the larynx with the laryngoscope.

DR. WILLIAMS.—No, sir. I will say that the cough indicated that there was probably a local irritation of the larynx and both cases got well very quickly. Both of them had been under the treatment of physicians for several weeks before.

DR. RUMBOLD.—I would like to ask the doctor if he has had any more cases of the same kind?

DR. WILLIAMS.—Not in my own hands. I have seen some in the hands of others and that is where I got my idea.

DR. RUMBOLD.—I have had such cases frequently. I recollect one patient who came from Mississippi to be treated for otorrhea and I passed a Wild's speculum into the ear to examine it, when he commenced to cough, and the cough was so severe as to resemble whooping cough. He coughed fully fifteen seconds and when he recovered I undertook to make another examination of the same ear but so soon as I put the speculum in the meatus, the spasmodic cough again commenced; he also became aphonic for a short time. He told me that he often coughed so hard as to lose his voice simply by putting the tip of his little finger into the meatus on account of the itching. I would like to have Dr. Williams' opinion on this case.

DR. WILLIAMS.—That was reflex irritation. Nitrate of silver

would have no effect on it. I will say in regard to the first of those cases—that in which I operated for strabismus—there could have have been no reflex irritation; of course, we all know that irritation of the external meatus will excite coughing; that is a very common thing. I would like to know if the relief of the otorrhœa cured the spasmodic coughing?

DR. RUMBOLD.—Yes, sir; it did completely. I have had many cases of this dry cough, in whom there was no apparent irritation, no inflammation of the larynx. I suppose in those cases of Dr. Williams there was an excessive flow of mucuous, and that the nitrate of silver remedied that. Warm salt water snuffed into the nostrils and out of the throat would have had the same effect.

DR. A. GREEN.—What good could it do to apply the nitrate of silver to the epiglottis, if the cough was not produced by some anatomical lesion?

DR. WILLIAMS.—It was a counter-irritant. I do not explain the action of the nitrate of silver.

DR. STEVENS.—I would like to ask the gentlemen if they have ever tried the effect of the will in these cases. For a number of years I have been in the habit when I had a patient with a dry cough to instruct the patient to stop coughing through the will and in many cases the patients could cure themselves without the use of any remedy. A great many of these cases are merely habit, and in those cases, the will is a potent agent in the cure.

DR. RUMBOLD.—It is very true, as Dr. Stevens has said that the patient can greatly assist in the cure of this kind of cough by enduring the tickling sensation that induces the cough. I tell my patients to count the number of coughs in a given time and try to reduce this number day by day. I have a little girl now under my care who has such a cough; she coughs to relieve a sensation in the nose; she feels impelled to blow her nose and cough at the same time. I have instructed her to try to decrease the number of nose blowings and nose coughs each day, and she is succeeding in her efforts.

DR. WILLIAMS.—I will say that in one of the cases I mentioned the patient coughed in her sleep. I don't think the will could effect much in that case.

Article VIII.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty-fifth Annual Meeting, held at Brittingham Hall Hannibal, Mo., May 16–17–18, 1882.

First Day, Tuesday, May 16, 1882.—Evening Session.

Railroad Surgery. By Dr. J. W. Trader, of Sedalia.

Long before the days of railroads or of railroad surgery we had similar injuries which were treated upon general principles. I can hardly expect to present anything new.

As a class, railroad injuries obtain a gravity not unusual in others; for example, fractures in which the soft tissues are also involved, not as in a compound fracture, but compound and comminuted. The feet, hands, arms and legs furnish the bulk of cases requiring surgical interference. When the trunk is involved they are either beyond all treatment or so trivial as not to need it. There is another point in common with other injuries.

The French surgeons were the first to introduce *operations de complaisance*, and they have gained quite a notoriety. Injuries of the soft parts may be restored without further surgical interference, but with the bones it is different.

Where the vessels and nerves are intact much may be depended upon them and nature will be adequate to effect a cure. No matter how bad the injuries may appear, if we have a complete system of vessels and nerves, no ablation will be necessary. The hands, in this respect, can stand severer injuries than the feet.

However, a better way of impressing these things upon your minds, will be by the presentation of hypothetical cases. Suppose that you are called to a recent railroad wreck; we are naturally led to believe that you will meet cases of serious railroad injuries.

Case I.—The patient is found lying prone upon a mattress,

not in very great pain. A general pallor of the surface is observed; the eyes are restless and wandering. The first question is to see the tongue, it is blanched. Next the finger is laid upon the pulse, which is found to be weak and fluttering. The seat of injury is looked after and found to be the lower third of the leg, which is of a bluish, cyanosed appearance. The first impression is that there is a simple fracture, if the physician be inexperienced. But hold the foot firmly and gently, rotate the leg and squeeze the foot, and you will see and feel, at once, that you are dealing with a comminuted fracture. There is no laceration of skin, but a complete destruction of the soft parts. The only resort in this is amputation.

CASE II.—The patient is found writhing in pain. The pulse is strong and bounding, and there is a fracture of the metatarsal bones and also of the lower third. To all appearances this is a case of greater gravity than the other, but it will yield better results.

CASE III.—The patient is in great agony; the pulse is feeble. There is great pain in the back and thighs and no apparent lesion. The patient cannotmake water. Upon introducing a catheter bloody urine is drawn off; there is pain in the abdomen. There is here fracture of the pelvis or rupture of the bladder.

CASE IV.—The patient is insensible; there is an oozing of blood from the ears. The pulse is compressed and slow. There is compression and concussion of the brain, perhaps fracture of the base of the skull. Let him alone; he will get well if the doctors only keep away.

In Case I. there will be uneasiness after the lapse of an hour. Loosen all the articles of clothing and administer pure chloroform from a towel cone, taking care to produce no shock. Use the chloroform alone and not too fast; it is the safest and best anæsthetic. As soon as the patient is insensible apply the tourniquet. Commence the stricture above the seat of injury. The next in order is amputation. This being performed, next is the dressing. Discard all binding appliances. I place upon these, cheese cloth saturated with carbolized water, and immerse the limbs in the same at a temperature of 90° F. This is the Lister mode theoretically. Sponge everything with the solution and there will be asepsis.

In regard to medication, be cautious with morphine as it may oppress the heart.

In Case II. there is a different set of indications to meet. Excitement runs high after shock. Dress the foot in the same way as the stump of an amputation, give a hypodermic injection of morphia, (grs. ½) and let the patient rest.

In Case III. of severe internal injury, you may give morphia with caution.

In Case IV. I told you keep the doctors away. When the surgeon informs the patient's friends that only quiet and a half ounce of water must be given and refuses to accede to the clamor of the friends, he is superseded by three or four doctors who succeed in effectually quieting the patient.

The cases I have detailed are not imaginary ones but constitute an epitome of what generally occurs. Conservative surgery has no better field than in such injuries. Never operate unless there exist an absolute necessity for doing so.

DISCUSSION.

DR. POTTER, of Cameron.—I wish to speak concerning where the limb should be taken off. In a case three years ago, I assisted in taking it off. We followed the doctor's advice and took it off near the injury. Before amputating we noticed a few bruised spots. The young man was hearty and strong and things went on splendidly until the third day, when we found the skin, fat and fascia inflamed and not erysipelatous but reddened and it sloughed off entirely six inches below the point of amputation. All that region was bruised. We had a great deal of trouble to save the limb and had to resort to skin grafting for three months, and it made a grand success. The question I wish to ask is this: Is it best to leave the bruised spots out of consideration or amputation above the parts injured if there is a slight appearance of injury?

DR. TRADER.—I said, cut as near as possible to the injury to obtain a good flap. You must be governed by the extent of the injury.

DR. C. F. CLAYTON, of Hannibal.—One of the best indications of the point where the amputation is to be made is the character of the flesh itself, that is, in case of a contusion or the application of a force to crush or mash the limb which will effect all the

tissues much beyond the absolute mark made by the force applied.

For example, during the building of the M. K. & T. R. R., a young man, aged 22 to 23, of a stout build, superintended about a pile-driver. The immense weight—1800 pounds—of the machine was ascending slowly. As it was ascending he was adjusting a plank to the top of the pile to protect it. A hook or something became detached and the weight fell upon his hand obliquely at the wrist. It was crushed into a shapeless mass. Dr. Lamb and myself were sent for; the injury apparantly extended no further than the end of the ulna, but upon close examination the flesh and tendons were affected much beyond. We elected to amputate further up and selected a point where the flesh was uninjured. We amputated and in three weeks he was in town and about. I think the proper means is to judge by the character of the flesh contiguous to the wound itself.

DR. SMITH, of Frankfort.—I wish to speak of the amount of sloughing in a contused wound and more especially where there is laceration. Sometimes a part remains attached to the "draw-head" and the tendons are extended some distance. May not the paralysis of the extremity of the nerve effect portions far above and produce a want of circulation about the stump? We frequently find, to all appearances, only a spot which looks as if it could be readily treated, and let it go, on that account. We find from that, that there is a want of circulation and gangrene supervening. Might it not occur from paralysis of the nerves?

DR. VAUGHAN, of Glasgow.—I am glad to see the ground the Doctor takes in regard to chloroform as an anæsthetic. I have had some experience with it and with ether. I prefer chloroform for this reason among others, that it produces a more satisfactory state of anæsthesia, and patients recover more quickly from the sickness.

In January I was invited to Dr. Gunn's Clinic, in Chicago, and saw ether given to a female with a cancerous breast. In the middle of the operation, the woman recovered, bounded from the table and fought the whole company.

DR. SIMMONS, of St. Joseph.—I like the paper very much, for its good, straightforward, practical, common-sense suggestions and thoughts. One of the thoughts is, that modern surgery, in its multitudinous necessities, has been divided, into specialties,

and the essay shows that this is right and that it is right to discuss it in such an association as this. Railroad like other surgery, I apprehend, may be conservative, aggressive and destructive. It is eminently conservative in taking care of an injury; but, it also ought to be preventive. In regard to chloroform, I am entirely in accord with the essayist, it is incomparably better than any other anæsthetic.

In regard to amputations near the site of injury it is prudent always to go above it far enough to get into the healthy tissues, and more so in railroad injuries than in others. So, I think the practical rule, to save as much as possible of the injured part, may be deviated from properly in these injuries.

In regard to the treatment, the cases mentioned are apt and illustrate splendidly the principles they involve. He could not enter into the details; but as far as he went, it was good with the single criticism I wish to make. After seeing a great deal used I am honestly of the opinion that carbolic acid is an irritating rather than a conservative agent.

For example, I believe that the male and female exist in regard to cells, as well as men and animals, and they thus multiply and repair and that the strictly albuminous fluid that is formed should not be washed away by aqueous solutions. I am well satisfied that, notwithstanding the injuries done by railroads, poultices and aqueous solutions have done more harm. I think that this albuminous fluid should rather be conserved than destroyed.

DR. TORREY, of Hannibal.—I agree with Dr. Trader and fully concur in the views expressed by him.

DR. W. F. PECK, of Davenport, Iowa.—I am much interested in the paper because I have been concerned in such injuries. In the first place, I do not believe that railroad injuries differ in pathology or degree from those inflicted by other kinds of machinery. I think it unfair to consider them specifically and distinctly because they occur on railroads. The treatment does not differ from that of injuries inflicted by machinery. The most difficult diseases to treat are those involving organs not easily approached.

In courts of justice we can see how pathology may be modified and distorted when money is at the other end.

I do not believe in shock, as such. We do not have traumatic injuries of the nervous system without signs that are defin-

ite. I do not believe in concussion. I believe in contusion of the brain and spinal cord even if the lesion be only microscopic. You all know how common it is for people to complain of the bladder, spine, etc. if they think they can get money by so doing.

Now, what are our means of seeing if there is such a condition? If a patient complain of a bladder trouble, we can see if there is. I remember on two occasions individuals received money because they became sterile and they have borne children subsequently.

The Doctor says that fracture of the skull should be let alone and it will get well. I believe it should be let alone, but it will not get well. There is contusion of the brain and probably meningitis which will doubtless prove fatal, as it does from such a cause.

I do not and cannot believe in using flaps. Cases, as a rule, if no marked depression of the nervous system exists, do better with the open treatment and there is less danger of septicæmia. I feel satisfied that I am right in giving full force to the statement that the open treatment is much better than the flap system. Oakum and drainage are more satisfactory than Listerism and flaps. By reason of the contusion we have foci which tend to set up a destructive action.

In regard to chloroform, I cannot speak of it as I have never used it.

DR. C. H. HUGHES, of St. Louis.—I am not now engaged in the practice of surgery, nevertheless, I have not lost my interest in the discussion of certain questions connected with the operative aurgery of railroad injuries. It has occurred to me that there is a difference between shock and concussion. It had been my custom to regard shock as a suspension of molecular activity in the nervous system; while concussion may be regarded as a step further, a coarse lesion following. Now, the successful management of railroad injuries, from my standpoint of observation is that of the consequences, embracing shock and is as important to the result of the case as the operative procedures. That part of the paper, I would desire to commend, which refers to the importance of managing the consequences to the central nervous system. While, in many cases, there is no difference as compared with the other surgical affections, there is a momentum to be taken into account which adds to the

gravity and it is this part which interests one whose mind runs into neurologic channels.

In the management of shock, it is the natural impulse of the inexperienced man to suppose the patient in pain and to resort to the hypodermic syringe. But if the shock be severe, following grave concussion of the cerebro-spinal axis, the experienced surgeon seeks for evidence of vitality in the manifestations of pain and seeks for a return of normal central molecular activity, temporarily suspended, and will measure moderation in the use of any anodyne agent. From a neurologic standpoint, it occurs to me that the surgeon would desire, whilst fortifying the patient against the consequences of pain too intense, to permit some pain to remain to show that the normal molecular activity is reëstablished. While he would employ anæsthetics or morphia with caution, he would also be careful not to use them too soon and likewise not to employ them too late.

There are times when the normal limit of physical activity may be reached and passed, and when passed the surgeon is for restraining influences; chemical restraint on the nervous system of the destructive changes that may entail greater injnry than the loss of the injured limb.

The effects of concussion of the cerebro-spinal axis are insignificant in the beginning, but often remotely dangerous, and seen by those not surgeons. I can concur, in part, with the observations of the last gentleman, without agreeing in *toto*.

DR. PECK.—One word in explanation. The last gentleman can find pathological effects for the nervous system and it is physically evident and he simply believes there is only a molecular inactivity. It must then be necessarily pathological.

DR. HUGHES.—I protest against molecular inactivity being considered necessarily abnormal.

DR. TRADER.—In regard to amputation at the seat of injury. If you have a case of laceration or even complete destruction, amputate with scissors. In other cases apply the catlin and cut where blood will come. I believe in the open wound treatment. But apply a dressing with carbolic acid, one drachm to eight ounces of water; don't forget.

In reply to the gentleman from Iowa, I wish to state that long before the days of railroad surgery these injuries were treated on general principles.

Article IX.

AMERICAN MEDICAL ASSOCIATION.

THIRTY-THIRD ANNUAL SESSION, HELD AT ST. PAUL, MINN., JUNE 6, 7, 8 AND 9, 1882.

FIRST DAY.—TUESDAY, June 6.—MORNING SESSION.

The general meeting was held at the Opera House and the session was opened by Dr. Stone, chairman of the committee of arrangements who was followed by Bishop Ireland who offered a prayer. Dr. Stone and Gen. Hubbard made addresses of welcome, Dr. Hooper presiding.

Protests from various States were read and followed by the report of the committee of arrangements.

The Vice-President, Dr. P. O. Hooper delivered the address, in lieu of Dr. J. J. Woodward, U. S. A., who is in Europe in failing health. At the conclusion of the address various letters of regret were read.

Dr. N. S. Davis presented a set of resolutions in regard to the temperance cause, which were referred.

AFTERNOON SESSION.—Meetings of Sections.

PRACTICE OF MEDICINE.—Dr. J. A. Octerlony, of Louisville, the chairman presided.

The secretary read a paper by Dr. Hilgard Tyndate, of New York, on Home Treatment of Pulmonary Consumption by General and Local Antisepsis on the basis of strict Individualization.

Dr. J. N. Shoemaker, of Philadelphia, read a paper on the Therapeutic Action of Chlorate of Potassium, which was discussed at some length.

Dr. Campbell, of Georgia, made a report relative to narcotic poisoning which also elicited discussion.

ANATOMY AND SURGERY.—Dr. Wm. A. Byrd, of Quincy, was elected chairman *pro tem.* of the section and the first paper read was by Dr. Carl Seiler, of Philadelphia, on the Uses of Electricity in Surgery.

The chairman read the paper of Dr. Hill of Bloomington, Ills. on Gastrotomy for the Relief of Intestinal Obstruction due to the Invagination of the Ilium within the Cæcum. After the discussion Dr. C. F. Gay, of Buffalo, read a paper on Anchylosis of the Hip. The next paper was read by the chairman being on the Radical Cure of Hernia, by Dr. J. H. Warren, of Boston.

OPTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.—Dr. Wm. Porter, of St. Louis, read a paper on Recurrent Pharyngeal Hemorrhage, which was followed by what the president called an "experience meeting," various subjects being informally discussed.

OBSTETRICS AND GYNÆCOLOGY.—Dr. N. H. Granger, of East Boston, read an essay on the Mechanical Treatment of Delivery from the Superior Strait, which created a lively discussion. Dr. Murphy then addressed the section on the Cervix Uteri after Emmett's Operation and its effect upon Subsequent Gestation and Delivery; this aroused but little discussion and was followed by the paper of Dr. Beverley Cole, of San Francisco, on the Forceps and their Use, a new forceps and speculum being exhibited.

STATE MEDICINE.—After a discussion on a resolution forwarded by the Indiana State Medical Association, Dr. John G. Lee, of Philadelphia, read on Suicide in the City and County of Philadelphia during the past Decade.

DENTISTRY.—A publication committee was appointed and after this Dr. WM. D. Kempton, of Cincinnati, presented a paper on Oral Hygiene; after being discussed the section adjourned.

DISEASES OF CHILDREN.—There was no meeting of the section on account of want of attendance.

SECOND DAY,—Wednesday, June 7.—MORNING SESSION.

The Association was called to order by Acting President, P. O. Hooper, of Little Rock, Ark. Prayer was offered by Rev. D. R. Bread, of St. Paul.

The committee of arrangements made some announcements and was followed by the announcement of the committee on nominations.

Dr. J. H. Packard, of Philadelphia, submitted the report of journalizing the transactions, which is quite lengthy and elabo-

rate and recommends, among other things, a salary of $6,000 per year for the editor and his assistants. Also that the name be the Journal of the American Medical Association, the terms to be $5.00 per annum for members and $6.00 for outside subscribers. Also, that as central a location as possible be chosen for its *locale*. The report was favorably received and its discussion deferred to the next morning.

The amendment relative to allowing permanent members, not delegates, to vote, was voted down by an overwhelming majority.

A resolution of Dr. Chas. Denison, of Denver, repudiating the term "allopath" was referred to the committee.

Dr J. A. Octerlony, of Louisville, read an address, on the Practice of Medicine, which was well received.

The judicial council made a report, among other things, refusing to admit delegates from the New York State Medical Society. The report was received with cheers.

The last paper was by Dr. H. O. Marcy, of Boston, on Uterine Tumors, the author using a large solar microscope to illustrate it and made it highly entertaining.

AFTERNOON SESSION.—Sections.

PRACTICE OF MEDICINE.—Dr. J. C. Tucker, of San Francisco, presented in behalf of professor Gibbon, of the same city, a paper on the Astringent Plants of the Pacific Coast; referred.

Dr. John V. Shoemaker, of Philadelphia, read on the Treatment of Syphilis by Subcutaneous Injections. After considerable discussion, the section adjourned.

ANATOMY AND SURGERY.—Dr. Wm. A. Byrd announced that he had received from Dr. Ephraim Cutter, of New York, a paper on Bi-fractured Patella, together with a plaster Paris cast of the knee; referred.

The chairman read for Dr. Stone, a paper on Fracture of the Elbow Joint, showing a Splint. Dr. Geo. W. Nesbitt, of Sycamore, Ill., read a paper on Ununited Fracture of the Femur treated by Exercise. After quite a long discussion and some important matters had been disposed of, Dr. McLean, of Ann Arbor, exhibited a case brought to his notice by Dr. H. M. Wheeler, of Grand Forks, D. T. It was an orbital aneurism the size of a hen's egg, stating that six years previously an

operation had been fruitless. After discussing the case the section adjourned.

CHILDREN'S DISEASES—Dr. Lee, the secretary, took the chair and Dr. N. S. Davis, of Chicago, read the first paper on Serous Diarrhœas and Cholera Morbus in Infants. This was discussed very shortly. Dr. Lee next read a Few Observations on Rickets, which after being discussed concluded the work of the section for the afternoon.

OBSTETRICS AND GYNÆCOLOGY—Dr. Nelson, of Chicago, read a paper on Special Pathological Conditions of the Cervix Uteri. The discussion was animated until Dr. Beatty, of Rome, Ga., at the request of the chairman, gave an account of the year's progress in ovariotomy, and was followed by Dr. Cole, of San Francisco, on the same subject.

STATE MEDICINE.—Expert Testimony was freely discussed, the resolution of Dr. Hughes, of St. Louis, that experts be summoned by the courts, and not by counsel on either side being unanimously passed.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.—There were no papers presented. The communication of Dr. B. Joy Jeffries, relative to approval of petition to congres for uniform standard for color blindness, was referred to a committee.

Dr Calhoun, of Atlanta, Ga., related a case of vaccination on the eye. Some other members presented instruments and after some informal discusssion the section adjourned.

DENTISTRY.—Dr. J. S. Marshall, of Syracuse, N. Y., read a paper of the Need of Dental Surgeons in the Army and Navy. After the discussion this paper elicited, a resolution was passed empowering a committee of three to make efforts in the direction indicated by the paper. Another resolution prevailed calling for the appointment of a committee to consider the subject of food, in its relation to the development of the different tissues and organs of the body.

THIRD DAY.—Thursday, June 8.—MORNING SESSION.

The Acting President called the Association to order and was followed by Rev. M.N. Gilbert in prayer.

The Committee of Arrangements made a report which was

followed by that of the Committee on Nominations which is as follows:

President.—Dr. Jno. L. Atlee, Philadelphia.

Vice-Presidents.—Drs. Eugene Grissom, N. C.; A. J. Stone, Minn.; J. A. Octerlony, Ky.; and H. S. Orme, Cal.

Treasurer.—Dr. R. J. Dunglison, Philadelphia.

Librarian.—Dr. Wm. Lee, Washington.

Judicial Council.—Drs. N. S. Davis, Ill.; J. M. Brown, U. S. N.; X. C. Scott, Ohio; M. Sexton, Ind.; N. C. Husted, N. Y.; Wm. Lee, Md.; and J. E. Rives, W. Va.

Officers of Sections:

Practice of Medicine.—Dr. J. H. Hollister, Ills. chairman; Dr. J. G. Lee, Pa. sec'ty.

Obstetrics.—Dr. J. K. Bartlett, Wis, chairman; Dr. G. A. Moses, Mo., Sec'ty.

Medical Jurisprudence and State Medicine.—Dr. F. Pratt, Mich., chairman; Dr. T. L. Neal, Ohio., sec'ty.

Ophthalmology, Otology and Laryngology. Dr. A. W. Calhoun, Ga., chairman; Dr. Carl Seiler, Pa., sec'ty.

Diseases of Children.—Dr. R. Blount, Ind., chairman; Dr. J. H. Sears, Tex., sec'ty.

Dentistry.—Dr. D. H. Goodwillie, N. Y., chairman; T. W. Brophy, Ills., sec'ty.

The committee announced that Cleveland had been selected as the place of meeting for the next year.

A committee was appointed to consider in regard to journalizing the transactions.

A number of resolutions were introduced and followed by the committee on necrology.

Dr. Wm. A. Byrd, of Quincy, read his address on Excisions of Portions of the Alimentary Canal covered by Peritoneum.

Dr. A. L. Gihon, U. S. N., next made an address on State Medicine.

The judicial council's report followed and the morning's session terminated with Dr. N.S. Davis' report of the work performed by the committee on meteorological records.

AFTERNOON SESSION.—Sections.

PRACTICE OF MEDICINE.—Dr. M. Donelly read a paper on Salycilate of Potassa and its use in Acute Rheumatism and Dyspepsia, which was thoroughly discussed.

After a vote of thanks had been tendered to the officers of the section an adjournment prevailed.

ANATOMY AND SURGERY.—The first paper was by Dr. Jos. Ranoshoff, of Cincinnati, on Contributions to the Surgery of the Liver. Dr. E. Andrews, of Chicago, followed with the Proper Points for Incision in the Drainage of Suppurating Knee Joints. The former of these papers was then discussed until adjournment

OBSTETRICS AND GYNÆCOLOGY. — Dr. Marcey read for Dr. J. Warren, of Boston, a paper descriptive of a curette for the removal of uterine tumors. Dr. D. Prince, of Jacksonville, Ills., exhibited a self stiching needle and was followed by Dr. Dunster of Ann Arbor, who read upon Ovariotomy during Peritonitis. Is it justifiable? After discussing this, Dr. Campbell, of Georgia, read a paper on Gravel and Impacted Retroversion of the Uterus A paper on the Gynesic Value of the Genu-Pectoral Posture by Dr. W. W. Potter, of Buffalo, was discussed at some length and followed by a paper on a New Uterine Repositor by Dr. Gerts, of Illinois.

STATE MEDICINE.—Mrs. Hunt, of Boston, spoke of the introduction of temperance text-books in the schools. This elicited a lively discussion.

Dr. Hughes, of St. Louis, read a paper on the Rights of the Insane. And the section, after passing another resolution, adjourned.

DENTISTRY.—Dr. E. S. Talbot, of Chicago, read on the Injurious Effects of Mercury as used in Dentistry. How Dentists should be Educated was treated of by Dr. W. W. Allport, of Chicago. The session closed with the reading of a paper on Medico-Dental Science by Dr. J. B. Lawrence, of New York.

FOURTH DAY.—Friday, June 9. MORNING SESSION.

The exercises opened with prayer by Rev. E. D. Neill.

The committee of arrangements made announcements and was followed by the Librarian's report in which he recommended a donation of $50 to the *Index Medicus*. The report was accepted.

The treasurer reported a balance in the treasury of $1141.38.

The committee on publication also made a report.

A resolution in regard to expert testimony, in substance the same as stated above, was adopted.

A number of resolutions of no especial importance were made and adopted.

The secretary was ordered paid $1.000 subject to the condition of the treasury.

A number of amendments to the constitution were made and lie over for one year.

A motion of Dr. N. S. Davis, that every second meeting be held in Washington was adopted.

The committee on nomination presented a revised list, the following being the changes:

LIBRARIAN.—Dr. C. H.A. Kleinschmidt, Washington.

CHAIRMAN COMMITTEE OF ARRANGEMENTS.—Dr. X. C. Scott, Cleveland.

ASSISTANT SECRETARY.—Dr. I. N. Hines, Cleveland.

ANATOMY AND SURGERY.—Dr. W. F. Peck, Iowa, chairman, Paul F. Eve, Tennessee, Secty.

The amended list was unanimously accepted.

Various resolutions of thanks were offered and adopted and followed by the address on Dentistry by Dr. D. H. Goodwillie; of New York. The president elect Dr. John L. Atlee, was escorted to the platform by Dr. N. S. Davis, and made a short address which was well received.

Article X.

The Will County Medical Society. (Illinois.)

A meeting of this Society was held at the office of Dr. Chas. Richards, Joliet, Ill., May 27, 1882.

Officers and Members: President, Dr. John R. Casey. Secretary, Dr. Romaine J. Curtiss.

Board of Censors:—Dr. D. J. Merriman; Dr. Romaine J. Curtiss; Dr. Wm. Richards.

Membership:—E. R. Willard, M. D., Chas H. Bacon, M. D., H. W. Alexander, M. D., J. H. Folk, M. D., T. H. McBride, M. D., D. J. Merriman, M. D., W. E. Fraser, M. D., Chas Richards, M. D., Henry LeCaron, M. D., Geo. C. Raynor, M. D., Wm. Dougall, M. D., L. C. Mitchell, M. D., Henry Folk, M. D., Romaine J. Curtiss, M. D., Z. E. Patrick, M. D., D. W. Jump, M. D., John R. Casey, M, D., John Benton Taxis, M. D., Andrew J. Miles, M. D., Wm. M. Richards, M. D., John W. Coombs, M. D., M. W. Kelley, M. D., F. W. Werner, M. D.

In the order of business the society proceeded to elect officers which resulted in the choice of Dr. Chas Richards for president, Dr. R. Curtiss for secretary, Drs. Alexander, Werner and Richards as board of Censors.

Drs. Wm. Dougall, H. W. Alexander and F. W. Werner were elected delegates to the American Medical Association.

A motion was made by Dr. Curtiss, which was carried, that the delegates be instructed to oppose the admission of the delegates of the New York State Medical Society by the American Medical Aperciation on account of the "New Code of Ethics" of that Society.

Romaine J. Curtiss, M. D.
Secretary.

THE SOUTH EAST MISSOURI MEDICAL ASSOCIATION ON THE DEATH OF PROF. JOHN T. HODGEN.

WHEREAS: It has come to the knowledge of this Association that Dr. Jno. T. Hodgen of St. Louis, Mo., has deen suddenly stricken down by death, and,

WHEREAS: In his demise, the Medical Profession loses one of its brightest ornaments, science, one of its ablest investigators, and the country one of its best citizens, and,

WHEREAS: Many of the members of this Association remember with pleasure and feelings of love and kindness, his valuable counsel and cheering words, when departing from their alma mater to assume the responsible duties of professional life, therefore,

Resolved: That the character and ability of Dr. Hodgen, as a model physician, surgeon, and instructor in the science of medicine is worthy of the imitation and emulation of all medical men.

Resolved: That the pinnacle of fame on which he rested, the many honors that were conferred upon him, and the many laurels with which he was crowned during life, were richly merited on account of the many, almost insuperable barriers, which, by his untiring energy and perseverence he surmounted in early life—never pausing in his rapid march till he mingled with those who are highest up the Hill of Science.

Resolved: That the memory of the grand achievements of his masterly intellect, the kindness of his sympathetic and charitable nature,and the arduous and praiseworthy work which his willing hands daily accomplished, shall be indelibly written upon the pages of history beside those of other great minds that have passed on before.

Resolved: That we deeply deplore his untimely death and mingle onr tears with those of his bereaved family, and that we hereby extend to them our heartfelt sympathies in this their hour of bereavement.

Resolved: That a copy of these resolvtions be transmitted by

the secretary to the family of the diseased, to the ST. LOUIS MEDICAL AND SURGICAL JOURNAL and to the St. Louis *Courier of Medicine.*

A. E. SIMPSON,
GEO. W. VINYARD, } Committee.
P. R. WILLIAMS,

Marble Hill, Mo., May 3, 1882.

The following resolutions in regard to Dr. Hodgen' were passed by the Illinois State Medical Society.

Quincy, Ill., May 17, 1882.

WHEREAS: the fact of the sudden and untimely death of Prof. John T. Hodgen, M. D.,of St. Louis,Mo., has been communicated to the Illinois State Medical Society, now in session at this place, therefore,

Resolved: That in the death of so distinguished a surgeon as Dr. Hodgen was universally admitted to be, having an enviable reputation both at home and abroad, this society recognizes in his death that the medical profession has lost one of its most eminent members.

Resolved: that this resolution be made a part of the record of this society, and that a copy of it be sent to his family.

Correspondence.

Article XI.

Examination Papers of Illinois State Board of Health of April 13, 1882.

Editors Journal:

Accompanying this please find the schedules of questions used at the last annual examination of candidates for certificates of practice by the Illinois State Board of Health (Chicago April 13–15, 1882,) and to which questions 80 per cent. of correct answers are required.

The numerous inquiries, both within and without the State, as to the scope and character of these examinations indicate that the publication of the questions may be timely and useful.

It should be noted that, after the session of 1882–83, candidates will be required to undergo an examination in the branches of a good English education, including mathematics, English composition and elementary physics or natural philosophy.

Very respectfully,

John H. Rauch, M. D., Secretary.

Examination in Anatomy.—By W. A. Haskell, M. D.

1. Name the bones of the carpus. 2. With what bones does the sphenoid articulate? 3. Describe a vertebra. 4. Describe the ligaments of the hip joint. 5. Name and describe the pronator muscles of the forearm. 6. Give the relations of the femoral artery and vein. 7. Describe the thoracic duct. 8. Give the distribution of the median nerve. 9. Where is Wharton's duct? 10. Describe the liver.

Examination in Surgery.—By W. A. Haskell, M. D.

1. Define inflammation. 2. What is the difference between ulceration and mortification?—between caries and necrosis? 3. What is a tumor? 4. Give illustrations of a benign, and of a malignant, tumor. 5. Give the treatment of mammary abscess. 6. Explain the *modus operandi* of reduction of the iliac dislocation of the head of the femur, by manipulation. 7. Give the differential diagnosis of compression and concus-

sion of the brain. 8. Give the differential diagnosis of inguinal hernia and hydrocele of the cord. 9. Give the diagnosis of morbus coxarius—(a) During the first stage before the occurrence of effusion. (b) During the stage of effusion—the capsule of the joint remaining entire. 10. Give the general treatment of fractures of the lower extremities.

Examination in General Pathology.—By R. Ludlam, M. D.

1. Give a definition of disease. 2. What is the difference between a predisposing and an exciting cause of disease? 3. Name the means employed in physical diagnosis. 4. What is meant by "a qualified prognosis"? 5. What forms of inflammation are reparative? 6. How would you recognize the cancerous cachexia? 7. What diseases are incident to the hemorrhagic diathesis? 8. In what diseases do we often find albumen in the urine? 9. What form of erysipelas is inoculable? 10. Why do attacks of pelvic and portal congestion frequently alternate with each other?

Examination in Gynæcology.—By R. Ludlam, M. D.

1. What are the uses of the uterine sound? 2. What diseases are accompanied by an increased depth of the womb? 3. In constipation, with or without hemorrhoids, which ovary is most frequently inflamed, and why? 4. What intra-pelvic inflammation is most frequently rheumatic? 5. What diseases are followed by fixity, or anchorage of the uterus? 6. Name the most frequent cause of menorrhagia in women who have had one or more children. 7. Define a menstrual headache, and give the treatment for it. 8. What are the sources of puerperal traumatism, and what are the most serious lesions that may result from it? 9. In a lying-in patient, how would you distinguish a physiological from a pathological chill? 10. When are mammary abscesses salutary?

Examination in Obstetrics.—By A. L. Clark, M. D.

1. Define obstetrics. 2. How can you differentiate pregnancy from ovarian tumor or cyst? 3. At what period or stage of labor is there the greatest danger to the mother, and what is the danger? 4. Give the contra-indications to the use of ergot. 5. Under what circumstances should version be performed? 6. Will the mother's blood pass out from the umbilical cord unless this be tied before being cut? 7. Give diagnosis and treatment of puerperal eclampsia. 8. Give diagnosis and treatment of hydrocephalus of the infant during parturition. 9. What is the shape of the posterior fontanelle?

10. Give the treatment for prolapse of the funis umbilicalis.

Examination in Chemistry.—By A. L. Clark, M. D.

1. What is meant by a qualitative, and what by a quantitative, analysis? 2. How would you test water for organic impurities? 3. Is hard or soft water most liable to contamination by passage through or standing in lead pipes, and why? 4. How would you test a suspected water for salts of lead in solution? 5. Give the names and symbols for ten elementary substances. 6. Name substances with which it is incompatible to unite KI in prescriptions. 7. What chemical elements are contained in pure grape sugar not found in cane sugar? 8. What liquid is the most universal solvent? 9. What is the difference between analysis and synthesis? 10. What precautions are necessary in handling chloroform in the presence of flame or fire?

Examination in Physiology.—By John Mc Neal, M. D.

1. What is the action of saliva in digestion, and what are its chemical constituents? 2. Describe the digestion of starch and of fats. 3. Give the source and the use of animal heat. 4. How is gastric juice formed, and what is its composition? 5. Explain the secretion of bile, its composition and use. 6. Explain the physiology of sleep. 7. Describe the fœtal circulation. 8. What nerves are directly concerned in the act of respiration? 9. Describe the circulation of blood in the fœtal heart. 10. What causes the sounds of the heart?

Examination in the Practice of Medicine.—By John Mc Neal, M. D.

1. What are the symptoms of variola, and its treatment? 2. How would you diagnose variola from varicella? 3. Give etiology, pathology and treatment of cholera infantum. 4. What is hysteria, and its treatment? 5. Give etiology, pathology and treatment of epilepsy. 6. Give diagnosis and treatment of eczema squamosum. 7. Give pathology, causes and treatment of typho-malarial fever. 8. Give differential diagnosis of diphtheria, and its treatment. 9. Give symptoms and treatment of leucocythæmia, and its treatment. 10. Give symptoms and treatment of acute idiopathic erysipelas.

Examination in Materia Medica and Therapeutics.—By J. H. Rauch, M. D.

1. Classify remedial agents, broadly, by their actions and uses. 2. Name some of the principal agents in each class. 3. Name the principal urino-genital remedies, and write five prescriptions, embracing a different one in each. Give the indications to be met by each prescription. 4. What alteratives,

emetics and cathartics are indigenous in Illinois? 5. Give the sources, active principles, two or more officinal preparations and uses of (a) camphor; (b) ergot; (c) nux vomica; (d) opium; (e) physostigma. 6. Describe the therapeutic uses of the bromides, and write prescriptions for each of three of them, with indications. 7. Mention some of the most important recent additions to the materia medica, with their uses. 8. Give the therapeutic uses and applications of *aqua fluvialis* or *fontana*. 9. Mention the different officinal preparations of antimony. 10. Give the doses of (a) ammonii phosphas; (b) iodoformum; (c) strychniæ sulphas; (d) acidum boracicum; (e) extr. belladonnæ alc.; (f) atropiæ sulphas; (g) resina podophylli; (h) tr. aconiti rad.; (i) extr. gelsemii fld.; (k) acidum hydrocyanicum dilutum.

Examination in Hygiene.—By J. H. Rauch, M. D.

1. Give the prophylaxis of small-pox, and the measures to prevent its spread on the appearance of the first case. 2. To what extent should vaccination be made compulsory in the United States, and why? 3. What is "ground-water," and what is its agency on health? 4. Describe the principal disinfectants, their applications and modes of use. 5. Formulate a set of rules for school hygiene. 6. What is "sewer-gas," and what evils are ascribed to it? 7. Give the differential diagnosis, for sanitary purposes, of (a) scarlatina; (b) rubeola; (c) varicella; (d) variola; (e) febris flava; (f) cholera Asiatica; (g) trichniasis. 8. Describe vaccination and its progress through the different stages; the effects ascribed to it; its complications; and the ages at, or conditions under, which it should be repeated. 9. What are the chief causes of an excessive mortality, and their remedies? 10. Describe Pasteur's recent experiments.

Examination in Medical Jurisprudence.—By J. H. Rauch, M. D.

1. At what age is the fœtus viable, and what are the signs and indications of such age? 2. What precautions—other than for the safety of the subject—would you observe in the exhibition of an anæsthetic, and why? 3. How would you determine whether lesions, injuries or discolorations, found on a cadaver, were produced before or after death? 4. What is the course of procedure in the commitment of persons in an insane asylum in this State? 5. Has the registration of vital statistics any legal bearing, and, if so, what?

Periscope.

Article XII.

TOXICOLOGY.

A Case of Transient Poisoning from the Instillation of a few Drops of Atropia into a healthy Ear Canal.—Dr. H. Knapp, records the following case in *Archives of Otology:*

Mrs. J. L., æt. 25, a healthy lady of New York, consulted me Nov. 14, 1881, on account of pain in and especially below her right ear, from which she had suffered, more or less, for two years. I found her hearing normal, her right drum-head slightly pinkish, the bright spot divided, after inflation normal; mild catarrhal pharyngitis. The left ear normal. The pain of which she complained being quite out of proportion to the symptoms of aural catarrh, I ordered, besides chlorate of potash for the naso-pharynx, a half-per-cent solution of sulphate of atropia warm to be instilled into the ear two or three times daily, since this remedy has of late years been favorably spoken of as alleviating pain in the ear. On the evening of the 14th of October she put a few drops of the warmed solution into the ear. The pain diminished, and she had no unplesant symptoms from the remedy The next day, at 8 A. M., she dropped four drops of the same solution in, and put some wadding into the canal. The pain subsided, and she felt well until 12½ P. M. when her hands and fingers began to swell and became stiff, her face was scarlet, her eyes swollen, her throat excessively dry, her tongue thick, her lower lip swelled and hung down, her heart beat violently, and she felt intensely hot. Cold water gave her no relief. These symptoms grew steadily worse until 5 P. M., when they began to abate, and at 6 P. M., she felt well again. When she came to me the next morning, I found her *in statu quo ante.* As the atropia seemed to have relieved her otalgia, I told her to dilute the atropine solution, and instill two drops when she felt worse. This was done, and had no poisonous effect. The pain gradually disappeared.

Her physician informed me that on other occasions he had also noticed her unusual susceptibility for atropia. In the instance related above the absorption of the drug must have taken place through the healthy skin, probably the sudoriferous glands, as there was no ulcer, not even an excoriation, in the walls of the ear canal.

PATHOLOGY.

IS THE OVARIAN CELL PATHOGNOMONIC?—The accurate diagnosis of ovarian tumor is of vital importance, as mistakes are by no means rare, even among our most skillfull diagnosticians.

In the *American Journal of the Medical Sciences* for April, 1882, Dr. W. A. EDWARDS published an account of some researches made in the Pathological Laboratory of the University of Pennsylvania, bearing on the value of the ovarian cell as a diagnostic point, from which he concludes:—

1. The ovarian cell is not diagnostic of the ovarian tumor.
2. We may have a fluid from an ovarian tumor entirely devoid of the ovarian cell.
3. On the other, hand we may have an abdominal fluid which is not ovarian, presenting the cell in great abundance.
4. With the present state of our knowledge, the accurate microscopical diagnosis of ovarian dropsy is impossible; the most distinguished ovariotomists always make their first incision an exploratory one.

THE ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE BLOOD-CORPUSCLES.—DR. ALEXANDER DUANE, of New York, concludes his article upon this subject in the April number of the "*New York Medical Journal and Obstetrical Review.*" The article as a whole embraces an historical and critical review of the part played by the corpuscular elements of the blood under normal and pathological conditions. For the red corpuscles the author proposes the term "erythrocytes." He thinds that Hewson's idea that these corpuscles are spherical sacs, containing a central globule of uncolored substance, although certainly false in the majority of cases, is not indefensible, the appearance of a central spot being due perhaps in some cases, as Arndt conjectures, to a residual granule, a relic of those that, according to the latter's hypothesis, once constituted the whole corpuscle. The criticism is suggested that the means employed by Hayem to demon-

strate his "hæmatoblasts" are just the ones that produce disintegration and decolorization of the corpuscles, resulting in appearances closely resembling what Hayem describes. Norris's colorless, biconcave, discoid forms seem open, Dr. Duane thinks to a similar objection. Malassez's modification of Gower's hæmatocytometer, does away with one source of inaccuracy in the use of the instrument, since the depth of the cell can always be adjusted to exactly 0.2 mm. The author differs with Obrastzow, Arndt, Norris, Flint, and others in the conviction that nucleation of the white corpuscles is a normal condition, and not attributable to post-mortem coagulation of granular "nuclear matter" —the chief reason for his dissent being that nucleated corpscules are observed in the vessels of living animals. The erythrocyte of the adult cannot be said to be capable, as a rule, of amœboid movement or of division, although such may be the case under morbid conditions. The remainder of the paper, which does not readily admit of a synopsis, includes a discussion of the formation and destruction of the corpuscular elements, the part taken by them in physiology, and a consideration of certain pathological conditions, notably anæmia, chlorosis, and leucocythæmia.

OPHTHALMOLOGY.

SYPHILITIC DISEASES OF THE LACHRYMAL APPARATUS.—Syphilitic lesions of the lachrymal gland, of the lachrymal caruncles and of the lachrymal passages—all, except the latter, of uncommon occurrence—are treated of by Dr. Charles S. Bull, Surgeon to the New York Eye and Ear Infirmary, in the *New York Medical Journal and Obstetrical Review* for April, 1882. Dr. Bull gives a concise summary of the meager literature of the subject, but his remarks are mostly from a clinical point of view. He alludes to a case of affection of the lachrymal gland in his own practice, in which the organ became inflamed in consequence of extension from an orbital periostitis. The entire contents of the orbit having been removed, to relieve the excessive pain, the gland was found generally enlarged, the hypertrophy being mainly due, however, to an increase of the connective-tissue elements rather than of the proper glandular structure. Two cases of gummy infiltration of the caruncles published by Dr. R. W. Taylor, being the first on record, are quoted in detail on account of their rarity. Osteo-periostitis gummosa of the

lachrymo-nasal canal has not been observed by the author, but Panas, Galezowski, and Larebière are quoted as mentioning its occurrence. Under the head of treatment, the following advice in regard to the inflammation of the sac is noteworthy: If the inflammatory action is severe, leading to the secretion of a glairy mucus or muco-pus, with a swelling over the seat of the sac, and there is good reason for suspecting a stricture of the duct, from whatever local cause, in the nose, do not resort to operative interference until internal medication has been tried faithfully. Ophthalmic surgeons are too prone to slit up the canaliculi and incise a stricture of the nasal duct in cases of syphilitic origin, deeming medical treatment useless in such cases, before even giving it a trial. The use of mercury here must be prompt, and its effect must be rapidly produced, or the disease may extend from the lining of the canal to the bony walls. An excellent method of administering mercury in these cases is to use two drachms of mercurial ointment by inunction upon the inner aspect of the arm or side of the chest, and at the same time give the mild chloride internally in small doses every hour or two, carefull watching for the first symptoms of the action of the drug. In many cases a beneficial effect will be observed on the third or fourth day, and then the mercury may be either entirely discontinued, or given in smaller doses at longer intervals. In many cases complete recovery follows such a course of treatment; all signs of inflammation and obstruction in the duct disappear, and its patency is restored without any incision or probing.

CENTRAL COLOUR-SCOTOMA.—In the *American Journal of the Medical Sciences* for April, 1882, Dr. JAMES L. MINOR shows, that while the way of testing for absolute colour-scotoma furnishes an accurate result, the method can be improved upon, while that described for partial colour-scotoma is open to the gravest error.

To obviate the central retinal exhaustion, which is taken account in the ordinary methods, and at the same time to furnish a means of comparison between the central and peripheral colour preception, he employs disks of coloured cardboard about 30 cm. in diameter, which are used as follows: The patient is directed to look at the centre of the coloured disk, and

if either an absolute or a partial scotoma exists it will be plainly mapped out upon the card, where the patient can himself trace the outlines. If neither the disc nor coloured cardboard of sufficient size be at hand, the two small bits of cardboard used in ordinary tests may be taken, and the acuteness of colour perception in various parts of the field of view compared by placing them, at the *same time*, in different positions, thus allowing a *simultaneous* comparison between them.

STRETCHING THE OPTIC NERVE.—Dr. Kümmell, of Hamburg, has stretched the optic nerve seven times in five cases. The eyesight had been partly or completely lost from atrophy of the optic nerves. The operation is done by making a slit in the lower and outer part of the conjunctiva near the cornea. A curved hooked is passed in and back, the optic nerve is caught and stretched, "not to strongly." Very slight symptoms followed the operation. In those cases where the blindness was not complete, there was some improvement.—[*Medical Record.*

THERAPEUTICS.

VACCINATION WITH BOVINE LYMPH.—Dr. John Morris has made some observations on this subject which are published in the *Maryland Medical Journal*, April, 1882. He reaches the following conclusions:

First. That the healthy heifer inoculated with pure, spontaneous cow pox, supplies a vaccine lymph which, when introduced into the human economy, produces all the symptoms to be found invaccination by human lymph, but in a more marked degree.

Second. That the protection afforded by vaccination with bovine lymph may be presumed to be fully equal to that obtained by human virus, but the fact cannot as yet be proved by statistics.

Third. That the dangers from human lymph are greatly exaggerated, and, if they exist at all, may have a counterpart in the animal economy.

Fourth. That cow pox, transmitted through heifers, is more active and more violent in its effects, than human virus, and if these evidences are a proof of the efficacy of the vaccination, it must afford a more perfect immunity from smallpox.

Fifth. That, by the use of bovine virus, we can at all times have an ample supply of fresh lymph, a consideration of much weight in the event of an epidemic.

Sixth. As human lymph produces its action on the system at an earlier period than bovine lymph, it would appear to be better to use it in those cases in which vaccination is employed as an abortive agent.

That further investigations are necessary to establish the true character of bovine lymph, and it is the duty of the profession to collect and publish all facts bearing on the subject.

CATHARTICS GIVEN HYPODERMICALLY.—Dr. G. Froumüller repeats a previous statement of his (*Memorabilien*, February, 1882) that the subcutaneous injection of Merck's aloin acts promptly and efficiently as a cathartic. He uses a solution of aloin in water (1–25). A passage from the bowels follows within three to five hours except in cases of obstinate constipation.

Solutions of extract of aloes are not efficient, as they are irritating locally. Concentrated decoction of senna leaves was tried by injection, but without favorable results.

Dr. Froumüller thinks the aloin injections will prove useful in cases of gastric catarrh or cancer; also in the insane and unconscious, and lymphspaces, and thus to help the removal of inflammatory products. It is said by Dr. Klein to diminish intraocular pressure and to relieve pain. It is therefore helpful in certain forms of glaucoma and of ciliary neuralgia.

It is contra-indicated in acute inflammations or where there is a great conjunctival or corneal sensitiveness.—[*Med. Record.*

PRATICE OF MEDICINE.

PRIMARY EPITHELIOMA OF THE TONSIL—Dr. D. Bryson Delevan, of New York, relates a case of primary epithelioma, of the tonsil, in the *New York Medical Journal and Obstetrical Review*, for April, 1882. Cancer of the pharynx, he remarks, although a somewhat rare affection, is one fraught with such serious results that no opportunity for investigating its nature or devising means for its relief should be lost. That the tonsil should be a favorite point of departure for malignant disease, seems not unnatural, when the anatomical position and structure of that organ are considered. The very qualities, however, which render

it liable to attack, afford, on the other hand, the greatest possible measure of hope for a favorable prognosis. For, if a diagnosis could be made before the disease had involved the surrounding tissues, the gland might, in most cases, be extirpated with comparative ease, and and by the natural passages, thus avoiding the formidable operation by external incision and the almost recurrence of the trouble. The paper concludes with a bibliography of the subject.

A CASE OF HÆMATEMESIS NEONATORUM.—Dr. Adam read a paper before the Victorian Association at Melbourne, from which we extract the following:

The case recorded below is chiefly interesting on account of its rarity:

On July 15, of the present year, Mrs. W. was confined of a female child. Regarding the labor there is nothing special to note, everything passing off satisfactorily.

In the course of the evening of the fourth day after delivery I was sent for to see the infant, and to my great astonishment, and I may add dismay, I found the child had been vomiting large quantities of blood.

Prior to this visit the infant was drowsy and disinclined to take the breast, but otherwise appeared healthy.

I examined the mother's nipples, but they were quite intact, and, indeed, the quantity of blood the infant vomited was sufficient to negative any suspicion of it coming from the mother's breasts.

At intervals the child had attacks of retching, ending with—and I am not exaggerating when I say—actually a gush of blood, after which the little patient would lie pallid and exhausted.

The vomiting consisted at first of a mixture of partially digested milk, bloody mucus, and blood clot; latterly the vomit seemed to be nearly all blood.

The stools at the beginning of the illness were of the ordinary appearance observed in an infant of that age, but on the second day they assumed a dark color, evidently due to the downward passage of blood.

This state of affairs continued, with varying severity, for three days, and the little patient died on the sixth day after delivery, in convulsions.

No post-mortem examination was allowed.

The treatment consisted in trying to allay the vomiting by cold compresses applied to the region of the stomach, and the administration of Bismuth; and to stop the hemorrhage by gallic acid and small doses of pulv. Ipecac Co.; nutrial enemata were also given.

I have named this dsease in contradistinction to a similar disease, intestinal hæmorrhage, because the hæmatemesis predominated; and, indeed, the stomach appeared to be the sole seat of lesion, for the melina was never great, and no pure blood was passed per rectum. Regarding the pathology of this disease I must confess total ignorance.—[*Australasian Med. Gaz.*

CRIMINAL LUNATICS.—Dr. August Voison the distinguished alienist physician of Paris, in a recent address suggests the following changes be made in the law governing lunatics. (These rules would be an improvement on the law in this country):

1. Every individaul who, having committed an offense or crime, shall be found to be insane can only leave the public or private asylum after a medico-legal inquiry ordered by the judicial authority. In all cases he will be detained in the asylum for a time at least equal to the penal detention to which he was condemned.

2. Every individual who has been confined in a lunatic asylum may in case of relapse be received into the same asylum on a physician's certificate, indorsed by the mayor or proper judicial officer.—[*Louisville Medical News.*

CONGENITAL TEETH.—Two small white spots were accidentally noticed on the lower jaw of a child, then twelve days old. The spots were supposed to be thrush. Four days later the mother complained that the child caused her great pain in the nipples while nursing. An examination of the mother's breasts did not show adequate cause. On looking into the child's mouth the two spots were found to be two sharp edged incisor teeth. They were removed, and appeared to be the right central and right lateral lower incisors.—[*Boston Medical and Surgical Journal.*

OBSTETRICS AND GYNECOLOGY.

LABOR COMPLICATED BY AN ENLARGED FŒTAL LIVER.—An unusual complication in labor occurred to day in the lying-in ward of Prof, Josef Spaeth, K. K., Allgemeines Krankenhaus. The patient was thirty-five years old amultipara, with no history of previous labor complications. The last pregnancy presented no features worthy of special notice. Yesterday she fell in labor at full term; the bag of waters ruptured early. The diagnosis of head presentation, second position, was easily made, and the heart of the fœtus was heard to beat regularly. Twenty-four hours later, after a tedious first-stage, the head was born. but the trunk did not follow. After waiting some minutes, the midwife called the resident accoucheur, Dr. E. Ehrendorfer, for assistance. Vaginal examination revealed the mouth of the uterus tightly encircling the thorax of the fœtus, while the uterus was tetanically contracted. After ineffectual attempts at extraction of the fœtus, the woman was chloroformed, when the spasmodic contraction at once ceased, and the fœtus was drawn out of the cavity of the uterusdead. The abdomen of the child was enormously distended by a slightly elastic tumor, occuping the position of the liver.

This tumor offered far more resistance to the maternal passages than the head. Upon the abdomen the liver was found to be immensely enlarged, occupying the greater portion of the abdominal cavity, and infiltrated with syphilitic gummata. The placenta, which came away naturally, presented to the naked eye no abnormal appearances.—[*Medical News.*

REMOVAL OF THE UTERUS IN OVARIOTOMY.—In the *New York Medical Journal and Obstetrical Review*, for March, 1882, Dr. Andrew F. Currier, House Surgeon to the Woman's Hospital, relates a case of removal of the uterus in connection with a multilocular ovarian cystoma, performed by Dr. T. Gaillard Thomas, and remarks that to remove a simple, free ovarian cyst is not a difficult operation, but that such tumors are not to be looked for in the majority of cases. From the record of more than fifty laparatomies performed at the Woman's Hospital during twelve working months, he finds only nine done for ovarian tumors unattached to surrounding viscera. In several of these, other serious complications were present. The adhesions in the remain-

ing cases were more or less firm, involving the necessary risks of hemorrhage, septicemia and peritonitis. Three out of the entire number held such intimate organic relations to the uterus as to call for the removal of that viscus. In one other case the uterus was removed on account of a growth developed from it. In others the portion of sac attached to the uterus was left. The ovariotomist should be prepared to take the bold step of removing the uterus when it is called for by such complications.

PROGRESS OF OBSTETRICAL SURGERY.—In the *American Journal of the Medical Sciences* for April, 1882, Dr. R. P. HARRIS continues the valuable statistical reports which he has been collecting on this subject. He reports five cases of Cæsarean section in the United States for 1880, in which three women and four children were saved; that is, 60 per cent. of the women and 80 per cent. of the children. During the same year Italy saved 4 Porro cases out of 11; Germany 2 out of 5; Austria 3 out of 3; and France 1 out of 2. The antiseptic management of Lister, the drainage-tube, the uterine suture, the cleansing of the abdomen from the blood and other fluids, the internal ligation of the pedicle of parts excised, the use of the hæmostatic pincers of Pèan, the pocketing of the pedicle, the excision of the pedicle by the actual cautery, and the hæmostatic effect of hot water, have all contributed to secure a higher percentage of recoveries after abdominal operations in women.

The introduction of the Porro modification in Europe has also had the effect of changing very materially, and for the better, the results of Cæsarean deliveries in large maternity hospitals. To save six women in succession with their children, as has been done in the Santa Caterina Hospital of Milan and Krankenhaus of Vienna, speaks well, not only for the care and skill of the three operators in each hospital, but for the operation as it was originally devised by the Pavian professor.

ABSENCE OF CATAMENIA.—DR. W. H. DEWITT, of Cincinnati, writes as follows to the *Lancet and Clinic*:

Mrs. K., native of Germany, 45 years of age, large, strong and muscular woman mother of nine children, seven living, two dead. She informed me that for months past she had not been feeling as usual, day and night had more or less headache, pain in lumbar region, together with a feeling of

weight and dragging low down in pelvis, no actual pain in uterine region, simply an uncomfortable sensation of great weight. These symptoms were thought to be by some of her neighbor women harbingers of climacteric change. This she did not think possible, for she assured me that she had never to her knowledge menstruated. I told her I thought she must certainly be mistaken, but she assured me most satisfactorily that she had never seen the slightest discharge from the vagina, or from any other source. To satisfy me still further, she never knew when to date her conceptions, that oftentimes she was ignorant of her condition until she felt the movements of the child; from this time (quickening) she determined the time of her confinements. This she informed me was the only guide she had to go by. At the age of seventeen, just prior to her marriage, she consulted a physician thinking perhaps there might be some physical defect in nature that would preclude her from entering the connubial state. She was informed by the doctor after a rather hasty examination, there was nothing abnormal as far as could be ascertained under the circumstances, advising her to marry, that in time all would be right. But all has not been right; from that time up to the present writing the same anomalous condition has existed, until recently she informed me she never experienced any pelvic discomfort so common at or near the menstrual epoch. Health never impaired, always robust and strong, able at all times, and under all circumstances, to attend to her numerous household duties.

Her present condition does not wholly unfit her for the cares and responsibilities of life, but being foreign to her nature, she deemed it important to seek advice, more especially perhaps on account of the gossip of neighbor women.

This one thing she could not reconcile, how it was possible for her to change life in the absence of menstruation. To me this case possesses very considerable interest and curiosity, more especially on account of the number of conceptions. The case of itself, independent of this, is to say the least, *anomalous*. It certainly demonstrates one thing conclusively, viz.: that there is no binding or absolute relationship between ovulation and menstruation, or in other words one may go on independent, or in the absence of the other. One more circumstance and I am done. Five of the nine conceptions occurred while nurs-

ing, three of the five within a very short period after confinement.

DECIDUAL HEMORRHAGE.—Dr. Carl Braun recently related the following history of a case in his lying-in ward: A woman of middle age, six months advanced in her first pregnancy, while at work in her kitchen, was suddenly astonished by a severe hemorrhage from the genitals. From the sudden occurance of a large hemorrhage, the conjecture that it came from the larger vessels was admissible. The blood itself was perfectly pure and unmixed with vaginal mucus. It is possible to affirm, that the hemorrhage came from the uterine mucous membrane, out of the decidua, rich in bloodvessels, and was due to a displacement between the decidua reflexa and vena. Digital examination showed the placenta, attached to the posterior wall of the uterus approaching the position of placenta prævia. As the latter condition occurs so much less frequently in primiparæ, it need not be considered in this connection. The treatment was expectant: its important feature, perfect rest. The opinion that decidual hemorrhage will return every month, during pregnancy is entirely erroneous.—[*Medical News.*

THE INFLUENCE OF SEXUAL EXCITEMENT UPON WOUNDS.—In a paper recently published in the *Lyon Medicale*, M. Poncet draws attention to the evil effects of sexual intercourse when indulged in during convalesence from injuries, operations, etc., and suggests that this may be a not very unfrequent although unrecognized cause of some of the mishaps and complications that occur in private practice. The sexual act that produces a certain amount of shock which M. Poncet thinks may be placed side by side with traumatic shock, and which leaves the patient for a certain time after indulgence in a condition of "least resistance," during which he is susceptible to morbid influence. With regard to the impression produced even in health by the act of coitus, some thermometrical experiments undertaken by an interne of the Lyon Hospital are quoted. A thermometer placed in the rectum was carefully observed on nine occasions, and it was found that the temperature was always from five tenths to six tenths of a degree Centigrade (nearly 1° F.) lower just after than before coitus. During the act the temperature rose slightly above normal.

In illustration of his views M. Poncet gives notes of seven cases observed in his own practice, where complications were ascertained to have followed coitus. Four of these patients had lesions of the hand or finger, and all were going on well up to the time of sexual indulgence, which was quickly followed by pain and swelling of the injured part in one case, and in three others by inflammation of the lymphatics, which went on to suppuration in two. In another case chronic tetanus was attributed to the disturbing effects of coitus and yet in another the non-union of a fracture. In the latter case union took place when the man was removed from his mistress who had been nursing him. In the seventh case pyemia and death are referred to a similar cause. The patient had undergone amputation for an injury, and was in the country away from any known septic influences. The wound was healthy and granulating, when on the eighteenth day after the operation he had intercourse. Rigors quickly followed, and death occured five days later. A somewhat similar case is mentioned on the authority of Ollier. Though these cases are all surgical, M. Poncet also refers to the adverse influence of sexual excitement in some other diseases, notably diabetes and gout.—[*British Medical Journal.*

Clinical Reports from Private Practice.

Article XIII.

Belladonna Poisoning.—Recovery. By J. G. Carpenter, M. D. of Sanford, Ky.

Mrs. H., about 65 years old, a confirmed morphine eater, for fourteen years, had atropia grs. ii aq. destill. ʒii. M. Dose gtt. i to ii every four or six hours *pro re nata*, making the dose one-sixtieth to one-thirtieth of a grain. The nurse forgot the size of the dose, and thought as many medicines are given in teaspoonful doses, it would be no harm to give the atropia solution that way; poisoning rapidly followed, pupils greatly dilated, temperature normal, pulse 120 to 140 per minute, and respiration 20 to 24; the throat, tongue and mouth became dry and furred, and the voice aphonic; active delirium and great muscular contraction soon followed. I was summoned several hours after the patient took the poisonous dose. Morphia gr. i was given every one, two, four or six hours for twenty-four hours, when patient recovered, though vertigo and muscular prostration lasted several weeks, and had the patient not been accustomed to large doses of morphine, morphia grs. v to x per day, death would have undoubtedly followed.

Reports on Recent Progress in Medicine.

Article XIV.

Report on Venereal Diseases.—By R. W. Wilcox, M. D., of Vienna, Austria.

The Subtutaneous Injection of Mercury.—Observations have been carried on for about a year at one of the special hospitals with substantially the following results. The preparation used for the hypodermic injection is composed as follows: powdered peptone, nine grams, chloride of ammonia, nine grams; corrosive sublimate, six grams; this forming an ammoniaco mercurial peptone, is dissolved in glycerine seventy-two grams and distilled water twenty-four grams and the solution filtered. The corrosive sublimate is contained in this solution in the proportion of one part to twenty of the menstruum, and thus the dose is easily regulated as well as further dilution (one to three or four) with distilled water readily obtained. On standing a small precipitate may form, but it will immediately redissolve on agitation, does not consist of calomel as in the former albuminoid preparations of mercury, nor indeed of free corrosive sublimate. This preparation, when made of pure drugs, is said to be chemically unchangeable. The urine of patients treated contains mercury which can readily be detected by the ordinary tests.

The place of the hypodeomic injections which is generally selected is the subcutaneous cellular tissue of the back, alternating the side chosen every day. Injections to the number of fifty and even more have been made on one patient without any local reaction. One of a large number of observations, no local disturbances such as nodosities, abscesses, extravasation of blood, have occurred in any marked degree, and then they could be attributed to the imperfections of the syringe employed, the carelessness of the physician or the concentration of the solution. Pain is not often complained of except by very nervous patients or when the injections are administered by a clumsy operator.

The daily average varied from one to ten milligrams of the sublimate and salivation was not met with in any of the cases where the dose was seven milligrams or less. In a small number of cases salivation occurred when the dose was eight milligrams or over, but it is claimed that in those cases there were previously existing non-specific diseased conditions of the mouth, as those resulting from use of alcohol, diseased teeth. Disturbances in the alimentary tract are extremely rare.

Knowing the rapidity of the action of other drugs by the subcutaneous method, one is not surprised that mercury also should make its effects more quickly manifest than when administered by the mouth, even this method seems to excel that of inunction in effectiveness, and it certainly is far more convenient and cleanly; of course, it is impossible, in a given case, to say how long a syphilide, for instance, will persist without treatment or with any given method of treatment, but out of the large number of cases that the writer has had the opportunity of observing, it seems that this method is exceedingly prompt and efficacious, especially in the irregular and violent cases often so obstinate under the ordinary methods.

THE IODIDE OF POTASH.—Some experiments have recently been carried on at the Laboratory of Hotel Dieu as to relative effects of the iodide of potash and the corresponding soda salt. A good sized dog was secured and a canula inserted into his trachea and connected by a rubber tube with a Marey's apparatus and a graphic tracing of his respirations made. Then one half a gram of the chloride of potash was injected, in solution with distilled water, into the femoral vein, which had been previously secured. At the end of five minutes another tracing was made and it was found that the number had decreased in the ratio of twenty-two to eighteen, while their amplitude had increased and some irregularity was observed. Then a canula was inserted into the carotid and connected with a mercury manometer and the tracing of the blood pressure made. A further dose of twenty centigrams was injected into the femoral vein, the blood pressure rapidly fell, the oscillations became more irregular, the heart ceased beating, while the respiratory movements continued for about twenty seconds after the heart had stopped.

Next the hearts of two frogs were exposed and a few drops

of a solution of iodide of potash dropped on one and an equal amount of iodide of soda on the other heart. The one treated with the potash salt ceased beating after a few seconds and remained in diastole, while the other heart did not appear to be affected. Of course these experiments are inconclusive not only from their number but from the fact that no care was taken to exclude the many sources of error, so that the only result, if there be any at all, is that chloride of potash is not good for dogs and frogs.

But in these experiments, inconclusive as they are, is contained a suggestion as to the propriety of substituting the soda for the potash salt in practice, but whether the soda salt would be clinically so valuable or whether we care to lose the effect of the potash on nutrition (oxidation) are points to be settled by careful and extended research, especially in actual practice. The marked action of the potash compounds on the heart and respiration are by no means to be lost sight of.

THE TREATMENT OF THE CHANCROID.—In the course of some lectures on this subject now being given at the Hôpital du Midi, the following treatment was recommended. It is believed that the venereal ulcer can be absorbed, especially at its debut by a caustic which shall destroy it, as Cauquoin's paste, to which enough alcohol has been added to bring it to a proper consistency. The strength used is equal parts of the chloride of zinc and flour. Or in place of this, sulphide of carbon can be used. If desired, the caustic can be applied in a liquid form as a saturated solution of chloride of zinc, which will not destroy those parts still covered by epithelium but only the denuded area of the ulcer. This caustic will form a thin pellicle over the surface which separates after a few days. In this method of treatment the pain of the ulcer ceases, the secretion is checked or at least becomes healthy in character. The contra-indications to the abortive treatment are the long duration of the ulcer or its seat near the urethra, as this method favors perforation and fistula.

If the abortive treatment is not to be adopted, for the reasons just given, other methods are as follows: In the first place the penis, if that is the seat of the lesion, is to be placed in such a position that the circulation shall not become stagnant, as on the abdomen, for example. For a dressing, lint wet in any of following solutions: carbolic acid, one to ten; alcohol; ferro-

tartrate of potash, one to ten; salicylic acid. Chloroform may also be used with glycerine in the proportion of one to ten. But preference is given to finely powdered iodoform, simply dusted on the ulcer. The smell is not likely to be objected to as the patients are generally so alarmed at the sight and angry appearance of the ulcer that they will readily submit. It is claimed for this last treatment, that it stops pain, checks the secretion and hastens the process of repair.

A PECULIAR BUBO.—The patient was a young physician, who gives the writer permission to report his case. Owing to overwork, the patient felt out of condition, and for the two weeks preceding the advent of the bubo had been obliged to do much walking, although previously accustomed to a somewhat sedentary life. A change of shoes had made a small abrasion on the fourth toe of the left foot, which was suppurating at the time of the commencement of the bubo. The glands began to enlarge in the right groin, occupying some eight to ten days in reaching their highest development, at which they were the size of a hen's egg, tender, rendering locomotion almost impossible, the skin over them reddened, the glands soft but not fluctuating. In the left groin a small gland attained the size of an almond, subsequent to the development of the glands in the other groin, no constitutional disturbance. Acting under the advice of two physicians here, the patient, who had remained in his room for a week now took to his bed during two full weeks, preserving a quiet which an ordinary person would consider extreme.

During this time, the enlargement in the right groin decreased to about one-half of its maximum size and ceased to be painful, becoming harder to the touch; the small gland in the left groin disappeared. But during the first week of the confinement to bed the lymphatic glands over the left parotid enlarged rapidly, forming a tumor the size of a hen's egg, soft, painful on movements of the jaw, skin over the surface of the mass normal, the glands on the antero-lateral portion of the neck sharing in the disturbance. On the right side the glands of the neck only were affected. These masses disappeared without suppuration and at the end of ten days could not be felt. In the meantime, the glands in the groin during the last three days of confinement began to enlarge but not to such a degree

as they had previously attained. After leaving his bed the patient remained in his room for a week, during which time the tumor slowly decreased, partly remaining hard while the other portions seemed to be on the point of suppuration. He afterwards went out, using ordinary care to prevent fatigue. After about two months from the appearance of the mass, a small fluctuating point was seen, incised and a small amount of serum, hardly turbid with white cells, was discharged, the wound soon ceased to discharge and now, three months after, a small indurated mass is found.

The interesting questions are principally in regard to the origin of the bubo. 1. Was the suppuration on the left foot the cause of the bubo in the right groin? The same individual some three years previous had a sore on the right foot, with the enlargement of glands in the opposite groin, immediately consequent to the suppuration. This enlargement disappeared without suppuration at a period a little later than the healing of the sore on the foot. The writer recalls a solitary case of carcinoma of the mamma when only the glands in the opposite axilla were enlarged. 2. Was a venereal ulcer the cause? Nothing of the kind could be found on the parts exposed to view, and that it was not in the urethra is shown by the absence of pain, discharge, commencing stricture. 3. Could it have arisen from a primary lesion? No lesion of the external geniatals could be found and the possibility of its being in the urethra is negatived because time enough has already elapsed for the constitutional symptoms, all of which are absent. 4. Was unusual fatigue the cause? To this opinion the medical men in attendance were inclined, believing also that the condition of the patient was an important factor in the case.

The treatment was the administration of a purge at the outset, external application of the tincture of iodine over the enlarged glands, during the period in bed, cod liver oil internally.

Paris, April, 1882.

Article XV.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Syphilitic Re-infection.—This question of the possibility of a re infection by syphilis is a very important and interesting one, touching as it does upon the possibility of a cure of the disease, for it is generally believed that, while the patient is under the influence of the first infection, he is not obnoxious to a second.

In the *American Journal of the Medical Sciences* for April, 1882, Dr. F. R. Sturgis reports the history of a man, who apparently free from previous disease, entered the hospital with two initial lesions, followed by a macular syphilide, osteocopic and muscular pains, and a double iritis. Under treatment, extending eight months, his symptoms entirely disappeared and remained absent for fifteen months from the last date of his taking medicine. He then entered the hospital again with a couple of lesions of the genitals, which appeared three days after coitus, no other connections having been indulged in for a period of five months. At the time of his entrance these ulcers were already a month old, and presented the appearance of initial lesions. Auto-inoculation practiced with the matter from one of these ulcers produced an apparent positive result, but the resultant pustule was short-lived, and did not have the characteristics of the simple venereal ulcer. It was followed by a macular syphilide, osteocopic pains, and other symptoms of an early syphilis.

Improved Plan of Using Chrysophanic Acid.—Dr. G. H. Fox says (*Medical News*, March 18, 1882) that the action of chrysophanic acid is difficult to control as all, who have had any experience in its use, know. His method is to make a soft paste by rubbing the acid with a sufficient quantity of water and smearing upon the psoriatic patches, where scales have been previously removed. As soon as the paste has dried, a

layer of collodion is allowed to flow over each patch and harden into a protective coating.

This will remain on for several days and when it falls off, the operation may be renewed. By this method the remedy is kept in full strength in contact with the skin without exciting undue inflammation of surrounding parts or staining the clothes. Care must be taken and the chrysophanic acid must not be mixed with the collodion but applied as above.

ON THE TREATMENT OF ECZEMA BY BANTINGISM. — Balmanno Squire, Senior Surgeon in the British Hospital for Diseases of the Skin, contributes the following to the *British Medical Journal* (*Lancet and Clinic.*)

It is familiar to every practitioner that eczema is specially common among infants, and particularly amongst lymphatic infants, that is to say, fat and pasty-looking infants. I do not refer only to those instances in which the very fatness of the infant is the mechanical cause of the complaint; that is to say where "a fold" of skin in the fat infant becomes raw and discharging (intertrigo); but I refer to the well known fact that infants of this constitution are more liable than others to eczema (of the scalp and other parts), not not coming under the head of "intertrigo," and that their eczema is more profuse in its discharge whether that discharge be serous or purulent, than it is in other infants; it is also more obstinate.

I recently recorded in the *Journal* some experiments I had made with iodoform as an application in such cases, and which succeeded very well as a means of reducing the eczema of such infants from the dicharging to the dry condition pretty rapidly. As to that, I was supported by other writers.

But from some observations I have recently made, I have reason to think that Bantingism as applied to such infants is as rapid in its effects, and if sustained, is of more permanent efficacy. Some years ago the late Mr. Banting was under care for eczema and I had an opportunity of conversing with him pretty frequently on the system of which he was the apostle. It is through this accident that the idea suggested itself to me.

I have used the word infant for the sake of convenience, but I refer rather to very young children. To Bantingise a suckling infant, is of course, not very practicable, but a child of two or

three years old can be dieted very readily. It does not appear necessary to the end in view that the diet should be restricted in quantity as well as quality, which of course was essential under the *regime* laid down by Mr. Banting, or by the late Mr. Harvey (the aurist) for him. It is simply necessary to limit the fat-producing elements of food for the amelioration of eczema in lymphatic young children. At least so I have have found. By this means their excessive obesity becomes diminished and their eczema very remarkably improved within ten days of commencing the regimen, and that without any injury whatever to their general health, so far as I can judge.

In place of pure milk, they should take milk diluted with an equal or even a double quantity of water. In place of bread and butter they should take dry toast or dry biscuits; and with these particular articles of food they may be supplied indefinitely. All the fat is to be carefully cut away from such meat as they may partake of, and they should not be allowed pork, veal, or lamb. They may have poultry or game, or fish, except the oily kind of fishes, such as herrings, salmon, eels, etc.; and the fish they partake of should be boiled (not fried). They may eat boiled vegetable tops, but not vegetable roots, such as potato, parsnip, beet-root, or carrot. Beef-tea (the melted fat being carefully skimmed off) is permissible in any quantity, and so also, toast and water. Cooked fruit (not sweetened) may be also allowed.

But the principles of the Banting treatment are universally known. It only remains for me to say that cod-liver oil (the favorite remedy, *par excellence*, for the condition of which I am speaking) is quite incompatible with the treatment I am advocating. Of course, the health of the child should be watched, and it should be weighed at the commencement of its dieting, and afterwards from week to week.

EXCRETION OF NITROGEN BY THE SKIN.—J. Byrne Power, L. K. Q. C. P. I., of Kingston (*Dublin Journal Med. Sci.*, May, 1882) has since 1877 made a series of experiments on the excretion of nitrogen by the skin. Although Voit, Ranke, Parkes and others have denied this, relying on indirect methods, Anselmius, Berzelius, Favre, Finke and others have maintained that it existed. Finke first not only found nitrogen in the sweat, but proved its existence as urea, and was the first to esti-

mate the quantity given by all the skin. His method however, was defective, as he only collected the sweat from a limited portion of the body and assumed that the rest of the surface excreted the same quality and quantity. As a result he found the amount to be in one case 0.198 grm, and in another 0.2935 grm., of soluble nitrogen excreted by the entire skin in one hour. The author, on the other hand, has obtained the sweat from the entire skin and endeavored, as much as possible, to eliminate all sources of error. The method is given in detail.

He finds from twenty-five experiments made upon six individuals—two healthy subjects and four hospital patients—that the greatest quantity of soluble nitrogen excreted by the entire skin, is in a case of Bright's disease and amounts to 0.2392 grm. per hour. In a healthy subject this quantity is as low as 0.038 grm. The mean result of all the experiments is 0.0824 grm.

In five of the experiments the amount of sodium chloride excreted can be compared with that of soluble nitrogen, and the quantity of the former is comparatively great being as 10:1. The author concludes that though he has found nitrogen to be excreted by the skin in all cases, yet the quantities are so small that he does not believe the cutaneous excretion can ever act vicariously of the renal to any appreciable extent.

VIOLA TRICOLOR IN ECZEMA.—Dr. Henry G. Piffard in a recent paper (*Medical Record*, April 29, 1882) speaks of the use of this remedy, known familiarly as the pansy, in eczema. French writers are almost unanimous in its favor and the drug is in constant use at the Hôpital St. Louis, Paris.

Dr. Piffard after repeated experiments found the infusion unreliable and a fluid extract by far the best preparation, on the whole. The results have been varied, some unmistakably brilliant, others negative.

When given in *acute* eczema the tendency at first is to aggravate the disease, increasing the area of invasion and being accompanied by greater local heat and pruritus. If persisted in, however, or stopped, it subsides and a recovery or considerable amelioration ensues.

For young children the proper quantity to begin with is from one to five drops of the fluid extract once or twice a day. If the case progresses favorably the dose should be maintained;

if no effects appear it should be increased; if aggravation occurs it should be discontinued for a few days, and afterwards resumed in smaller doses than at first.

In *sub-acute* or *chronic* eczemata the commencing dose should be much larger, ten or fifteen drops at least; this is continued or increased if necessary, until the eruption shows signs of activity, that is, until a decided aggravation is imminent. At this point the dose should be discontinued, as before mentioned, and resumed in smaller doses. In adults the commencing dose may be five to ten drops in acute and half a drachm to two drachms in sub-acute cases.

The best and most striking results have been obtained in the second stage of eczema, with serous or sero-purulent exudation. In the first stage, there is rarely an opportunity of using this or any other medication, and in the third or squamous there are other remedies equally as good if not better. In a certian proportion of cases, its administration is preceded with a single full mercurial, either blue-pill or calomel and jalap, and in perhaps one-third appropriate local treatment has been conjoined.

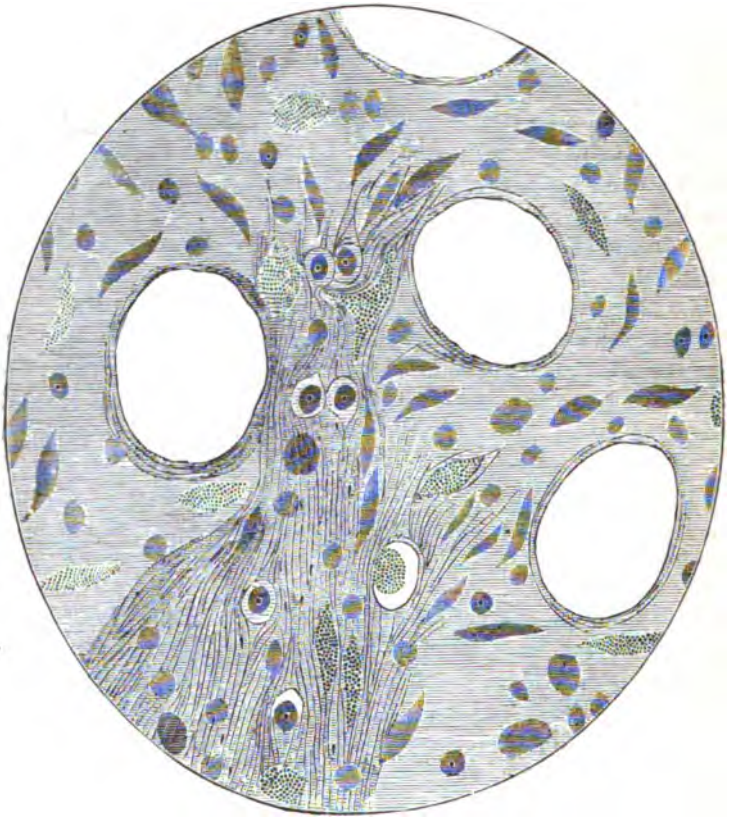
The author has used the fluid extract prepared for him by Dr. Squibbs and that by Caswell, Hazard & Co., which have, in every way, proved satisfactory.

THE BACILLUS LEPRÆ.—In the April number of the Chicago *Medical Journal and Examiner*, Dr. H. D. Schmidt considers the question as to whether the bacillus of leprosy is a reality or a fiction. He details his method of preparing slides for examination and he has never succeeded in discovering the bacillus in any of his preparations. He has submitted them to competent microscopists who have also been unable to discover it.

Dr. I. Bermann records, in the *Archives of Medicine* for June, that he has examined specimens furnished by Dr. J. E. Atkinson and he has found the bacilli in them. The size of these rods equals one-sixth to one-eighth the size of a red blood corpuscle in breadth, and one-half to one-third in length. Almost without exception they are within the large "lepra cells" (Virchow), and irregularly distributed through them. These cells are usually four to eight times the size of a white blood corpuscle, and are lying close together with but little interstitial tissue.

The author insists that failure to discover the rod-shaped organisms is on account of not properly preparing the sections

FIG. 1.



Section from Leprous Tissue showing rod-shaped Bacteria.*

for examination. Certain it is that to find one bacillus is more satisfactory than not finding a thousand. We have presented by Drs. Schmidt and Bermann, negative and positive results on the subject and must confess that we incline to the latter. It may be that by more careful or rather different preparation, the former's specimens may yet yield different results.

* We are indebted to the kindness of the editor of the *Archives of Medicine* for this cut.

Editorial.

Article. XVI.

MEDICAL SCHOOLS OF ST. LOUIS.

More than forty years have now elapsed since "The Missouri Medical College," and "The St. Louis Medical College" were established, the former antedating the latter by a few years only. The career of each, though with varying vicissitudes of fortune: has been highly honorable and useful, and to a good degree has determined the elevated character of the profession at the West (though other schools of lesser note have interjected their representatives throughout) and their graduates generally have reflected credit and distinction upon their Alma Mater. These two institutions, sole competitors in this city, year by year, have demanded higher degrees of excellence of attainment as a prequisite for the candidate to receive its honors.

Something more than a decade of years since, "The Humboldt Medical School" achieved an existence, but after a continuance of a few years it succumbed. "Ilium fuit." The original two continued "masters of the situation" till the inauguration of "The College of Physicians and Surgeons." This latter with the St. Louis Medical College, following in the wake of "The Harvard Medical School" have adopted the three-year system of study. The same having been adopted tentatively has recently been abandoned by one of the Medical Schools of New York city; its faculty apparently and indeed by its own confession, preferring extent of patronage to degree of excellence; which, being properly interpreted, means immediate pecuniary returns to self, rather than to rely upon the greater reputation which by its graduates would be reflected upon their Alma Mater, in consequence of the higher grade of educated mind sent forth from its portals. "The Missouri Medical College" will, in its own good time and manner, exact, at least, equal excellence, as an indispensable condition of graduation.

As far as regards the Missouri Medical College, they are

expending a large amount in fitting up a clinical laboratory ready for use this fall, to be under control of Prof. Curtman, where practical chemistry will be taught. They are also inaugurating other improvements, such as an obstetrical and gynæcological laboratory, where demonstrations upon the cadaver of positions and relations of pubic viscera, the various steps in the process of labor, obstetric manipulations and the use of the forceps will be given. A course also upon clinical microscopy, etc.

In short, they intend to keep step in the front.

In the ST. LOUIS MEDICAL COLLEGE, the Course of Studies extends over a period of three years, and is a graded one, the student devoting himself during the first year mainly to theoretical and demonstrative branches—the fundamental sciences of medicine, and in the second and third year gradually taking up the practical subjects and specialties.

This plan has been pursued with complete success for two years past, the way having been opened for it in three preceding years by a voluntary Three-Term Course, of which an unexpectedly large proportion of students have availed themselves.

Henceforth, all students entering the College will be required to pass a satisfactory examination in the branches of a good English education, including English grammar, orthography and composition, mathemathics and elementary physics. Students who present a diploma or certificate of graduation from a literary or scientific college, or a high school, shall be exempt from this preliminary examination.

Students who have attended one course of lectures in some accredited regular school of medicine, may enter the Middle Class after passing a satisfactory examination in Chemistry and Anatomy. Students who have attended two such courses of lectures, may enter the Senior Class after passing a satisfactory examination in Chemistry, Anatomy, Physiology, and Materia Medica and Therapeutics.

These examinations shall be wholly or in part in writing, and the orthography and grammar shall be taken into consideration in determining the merits of the student.

Among the requirements for graduation are the following:

The candidate must have attended *three* regular courses of lectures, the last of which have been attended in this school.

The Spring session is not estimated as a part of the courses required for graduation.

The candidate must undergo a satisfactory examination in Chemistry, Anatomy, Physiology, Materia Medica and Therapeutics, Principles and Practice of Medicine, Clinical Medicine, Surgery and Obstetrics.

THE COLLEGE OF PHYSICIANS AND SURGEONS still adheres to its three-years' term of study. Those that have had instruction from a respectable physician a year or more, are admitted to the second year's course upon examination; those who have had office instruction for one year, and who have attended a respectable college for one course upon passing examination upon all the branches taught in the first and second course are admitted to the third or graduating class. Students without a preliminary office instruction must study three full years.

Physicians in respectable standing having obtained the legal qualification in the State in which they practice, and possessing a license to practice are admitted at once to the third or graduating class.

All students are examined on the branches of the preceding year, and on passing, are advanced to the next course. These examinations are considered final as far as these branches are concerned; the graduating examination is therefore limited to the three practical branches—medicine, surgery and midwifery.

The matriculation fee and demonstrator's ticket have been dropped.

To encourage students in taking out a three years' academical course, who otherwise have claims to two years, the office instruction being counted one year, the faculty admits such students who have attended two courses at the college to a third, or supplementary course free of charge.

From the number of applications already in the hands of the dean, there is a necessity of enlarging the accommodations, and this is being done.

The chemical laboratory for analytical work, and a physiological and pharmacological laboratory are being arranged for vivisections, and experimental tests of the action of medicinal and toxicological agents.

These Medical Schools and the ability of the gentlemen associated for instruction therein have, with the Medical Socie-

ties, and the Medical Schools of other medical faiths, contributed mightily to render our Metropolitan City of the West, the Medical Centre of the Mississippi Valley.

But the list of medical schools was not complete; the entire field was not occupied nor utilized. One medical school was yet wanting. Conscious needs long existed and were thus confessed; but the how to supply them was the question. With the view of its solution, post-graduate classes were improvised; but, in some instances, these have been abandoned as impracticable and inadequate. Another effort, more complete in its system and extended in its scope, has resulted in initiating the first institution of the kind in the world, the establishment of the

THE COLLEGE FOR MEDICAL PRACTITIONERS.

Desiring to secure no undue publicity but to avert misconception with which an Institution, new in respect to time, and novel in the character of its scope, may be visited, we trust our readers will indulge us once more in a brief allusion thereto.

Many an enterprise praiseworthy in itself, its purpose and objects, has failed of achieving the ends proposed through indiscretions committed, or the failure to exercise the needful practical wisdom in adjusting the antecedent appliances and agencies. The originators of this "college," have endeavored to devise and act with due caution, circumspection and prudence.

The abstract possible utility of this institution, now legally chartered and inaugurated, admits of no question. The testimony of many of the profession, whose discriminating opinions we ever receive with gratification and deference, all conspire to the declaration, that the facilities which this Institution is designed to afford to the busy general practitioner, are greatly needed. The occurrence in his practice of an exceptional case, combining perplexing and embarassing complications, seems to convince him of his want of familiarity with the symptoms presented, and their pathological significance. Hence he desires to be instructed, briefly, in the most recent advances in that particular case or class of cases. Such cases cannot be intelligibly arrayed before the medical student; these are not for the neophyte; for him great truths must for his comprehension be diluted into generalities. Actual practical experience reveals weaknesses unsuspected before; the process of duly fortifying

these results in edifying the mind and increasing the ability of the ambitious practitioner.

The April number of the JOURNAL contains, in epitome, the sentiments of many, who, at that date, had expressed themselves. We desire to reiterate, that which has been explicitly stated before, viz: that this Institution in no manner antagonizes existing medical colleges, nor in its design does it approximate competition with them. It enters a field hitherto entirely unoccupied; it seeks not to confer diplomas authorizing the possessors to legally practice medicine, nor is it endowed with the power so to do. It simply offers to the general practitioner the facilities for informing himself or of refreshing his attainments in those departments of medicine or surgery, in which practical experience has demonstrated to him that he is deficient; in fine, for strengthening the weak and confirming the adept; thus increasing ability to encounter disease more successfully, and the patient in the same degree obtain the greater benefit.

Should any designate the motor-agencies a union of specialists, we shall not take exceptions to the charge. Even then in this respect it does not widely differ from the existing medical colleges. The charge may be interproted as a compliment, and if the specialist, who limits his thought, researches and practice to one branch of surgery, should fail to acquire a greater competency in that particular specialty, than he, who embraces in his field of practice the entire circuit of the wide and ever extending domain of surgery, he at least ought to, and if he is not, it is a discredit to his talents or his industry and a travesty on that sub-division of labor, which elsewhere results in the *perfection* of skill.

We are happy in the consciousness that the "College" with which we are in hearty sympathy, meets the cordial approbation and commendation of cotemporary Journals; and none who is familiar with the multiplied sources of information tributary to them and by which opinion is generated or moulded, can doubt that they are qualified to speak *ex cathedra*. As a specimen of the manner in which they reflect the general sentiment, we are pleased to note the testimony recently published in "*Gaillard's Medical Journal*," and beg to quote it, viz: "This movement if properly conducted must succeed. It meets a decided want, and this *Journal* offers all concerned its best wishes and support."

Here is evidence of the conceived need of the Institution, and the assurance of its success, through its appreciation by the medical public, and besides its kind benediction, it magnanimously proffers its aid and support. What more could its co-laborers expect or ask!

The establishment of this College is predicated upon the need consciously felt by every progressive medical man, and which by many, has already, to us been expressed. The curriculum of study and lectures of "Medical Colleges" furnishes as much instruction, as the mind of the student, during the period of his allotted novitiate, is competent to receive. This institution proposes to emphasize and supplement the instruction already received, and induct the mind aspiring for more, into the higher walks of medical science as developed in the pursuit of special subjects. This "College" is not designed for him, who *is* competent to grapple with any emergency that may arise, nor will it find sympathy with him who deems himself self-reliant; nor in the declaration of its objects, is it intended either directly or by implication, to impute ignorance on the part of the profession; but it proposes to deal with facts, to assist the student in gratifying his desire for the acquisition of greater excellence, and in the most liberal spirit to present the enterprise to the generous consideration of our profession for its approbation, and encouragement.

Book Reviews.

Article XVII.

1. The Diagnosis and Treatment of Diseases of the Eye. By Henry W. Williams, A. M., M. D. 8vo., pp. 464. (Boston: Houghton, Mifflin & Co., 1881. St. Louis: St. Louis News Co.) Price $7.00

2. A Manual of Ophthalmic Practice. By Henry S. Schell, M. D. With fifty-three illustrations, 12mo., pp. 263. (Phila.: D. G. Brinton, 1881. St. Louis: Hugh R. Hildreth Printing Co.)

1. This is not a very large or comprehensive work and is rather a record of the author's experience with an effort to draw practical deductions, than a text-book properly so-called. He considers at some length refraction and accomodation and kindred subjects, and on the whole the book will be read with interest by the oculist more than by the general practitioner or student. One noticeable feature is that it is not overburdened with obsolete wood-cuts.

2. Schell's Manual is a short comprehensive work, more adapted to the wants of students. It is small but sufficiently comprehensive for general use. Although treating of many subjects in common with Williams, it contains some subjects not mentioned in the former, whilst omiting some mentioned.

Taken together a good idea of the present state of oculistic practice can be formed from the perusal of both works noted.

The Physician's Clinical Record, for Hospital and Private Practice, with Memoranda for Examining Patients, Temperature Chart, etc. (Phila.; D. G. Brinton, 1881. St. Louis: Hugh R. Hildreth Printing Co.)

This is a very good and handy little memorandum book by means of which full notes of the course and progress of a case of disease can be kept. Besides this a small stencil plate accompanies it, to be used for sketching the outline of the thorax and abdomen, in which may be marked, by shading, the seats of effusions, size of organs, tumors, etc. We can cheerfully commend this record.

THE OPIUM HABIT AND ALCOHOLISM. A Treatise on the Habits of Opium and its Compounds; Alcohol; Chloral Hydrate; Chloroform; Bromide of Potassium; and Cannabis Indica, including their Therapeutical Indications, with Suggestions for Treating various Painful Complications. By DR. FRED. HEMAN HUBBARD. 12mo., pp. 259. (New York: A. S. Barnes & Co.) Price $2.00.

We cannot commend this little volume to our readers. In the first place the author treats of so many subjects that he can do but little justice to any one of them. Again, the make-up is very defective. There is no table of contents or index. The pathology is poor and treatment is not very brilliant, whilst the prescriptions presented are execrable in composition, being a mixture of poor Latin, English and Anglo-Latin (?). The author puts forth a plea that he has met with difficulty in writing this, owing to his limited time. We condole with him, but can hardly regard this as a sufficient mantle to cloak all of his errors. However, some of the points brought out are good and merit better and more extended treatment.

ANNUAL RDPORT OF SUPERVISING GENERAL of the Marine Hospital Service of the United States for the fiscal year 1881, 8vo., pp. 247. (Washington: Government Printing Office, 1881.)

This report is an interesting one, more particularly in reference to the forty odd pages that are devoted to the subject of beriberi. There is an account given of the cases observed at San Francisco, imported from Yokohoma, Japan, and also observed at Rio de Janeiro. Thermometric charts, pulse tracings and notes of the microscopic examination of blood, make this a very valuable contribution to a disease which is beginning to attract the attention of investigators. The disease in Ceylon is also considered and on the whole this report for 1881 will be regarded as a valuable reference in regard to this disease.

It is but justice to say that many interesting cases taken from the reports of medical officers and hospital records and valuable statistics, go a great deal to render this volume one to be prized.

DE LA LITHOTRITIE RAPIDE. Par le DR. RELIQUET. 8vo., pp. 79. (Paris: Adrien Delahaye et Emile Lecrosnier, 1882.)

ON RAPID LITHOTRITY. By DR. RELIQUIT.

The author commences with a description of an apparatus to elevate and steady the buttocks of the patient, and throughout we find that he has drawn largely upon his ingenuity for a number of instruments.

In this work the author wishes to demonstrate that it is almost always possible to crush, in one short sitting of less than five minutes, the most frequently occurring stones—those of two to two and one-half centimeters in diameter. This is to be accomplished by the use of his instruments.

To give more strength to the lithotrite he has diminished the height of the female jaw and widened it proportionately. He has filed the internal aspect of the edges of the teeth of the male jaw, which permits of it to seize upon the stone without slipping.

The apparatus has for its action to cause the stones or fragments to fall in the lithotrite, thus rendering the apparatus more easy, and as little irritating as possible for the bladder, the roughness or teeth of the jaws of the lithotrite never coming in contact with the walls of the bladder.

Each time that the bladder is well emptied or contracts itself well, evacuation by the catheter and injections, which Dr. Reliquet has always practiced, he claims are more rapid than by means of the apparatus of Bigelow, Sir H. Thompson, Clover, etc. He employs them for cases in which the bladder does not contract, or incompletely so, and not evacuating itself fully.

The author insists upon the utility of making injections of carbolized water (1 : 1000) at the termination of the evacuation, and also of employing for all the injections during the operation borated water (35 : 1000).

L'auteur commence avec une description de son appareil pour elever et fixer le siége du sujet, et nous trouvons ce travail parsemé avec des instruments dues a l'ingenuité de l'auteur.

Dans ce travail, il essaye de démonstrer qu'il est presque toujours possible de broyer, en une seule séance de moins de cinq minutes, les pierres les plus frequentes, celles de deux centimètres à deux centimètres et demi de diamètre. Et cela en se servant de son appareil pour la lithotritie et de son brise-pierre.

Pour donner plus de puissance broyante à son brise-pierre, il a diminué la hauteur du bec femelle en l'élargissant d'autant. Il a mis des coups de limes sur la face interne des bords des dents du bec mâle, ce qui permet á ce bec de gripper sur la pierre dans y glisser.

L'appareil a pour action de faire tomber la pierre ou ses fragments dans le brise-pierre, ce qui rend les prises très faciles pour l'operateur, et aussie peu irritantes que possible pour la vessie, les aspérités ou dents des deux becs du brise-pierre, si actives dans la prise et le broiement, n'étant jamais mises en contact avec la paroi vesicale.

Toutes les fois que la vessie se vide bien, se contracte bien, l'évacuation par la sonde au moyen des injections, que le Dr. Reliquet a toujours faites, est bien plus rapide que par les aspirateurs de Bigelow, Sir H. Thompson, Clover, etc. Aussie réserve-t-il ceux-ci, pour les cas où la vessie ne se contracte pas, ou ne se vide pas, ne se contractant qu'incomplètement.

Enfin, l'auteur insiste sur l'utilité des injections d'eau phéniquée an millième, faites à la fin de l'évacuation, et sur l'emploi, pour toutes les injections faites pendant l'opération de l'eau boriquée à trente-cinq pour mille.

DE LOS CARACTEROS CLINICOS QUE DISTINGUEN LA LEPRA, EL LUPUS Y EL CANCER DE LA GARGANTA POR D. RAMON DE LA SOTÁ Y LASTRA doctor en Medicina y Cirugia. Memoria leida en el Congreso Médico de Sevilla celebrado en el mes de Abril, de 1882. (Seville: Imp. de Gironés y Orduña, 1882.)

ON THE CLINICAL CHARACTERISTICS WHICH DISTINGUISH LEPROSY, LUPUS AND CANCER OF THE THROAT. BY DR. RAMON DE DA SOTA Y LASTRA.

The description given by the author although short is very clear and eminently clinical. Leprosy almost always makes its appearance on the skin before it does so in the throat; whilst lupus and cancer may exist in the throat, the skin remaining healthy. Again, leprosy is preceded by a red coloration which, after some time becomes white and unaccompanied by tumefaction; lupus spreads itself over the mucous membrane which preserves all of its normal qualities; and cancer begins with congestion, tumefaction and inconvenience in the parts.

The tubercles of leprosy are white, smooth, of variable size forming a chain or string of beads, sensibility is normal, diminished or completely abolished. The tubercles of lupus are pink or red, hard, resisting and elastic, larger than those of leprosy less numerous and scattered; in general they are painless. Those of cancer are reddish, red or grey, hard or soft, sessile and subject to sharp pains which run in every direction.

There is a marked tumefaction of the mucous membrane in leprosy; an œdema red and hard, in cancer; a normal state of the parts occupied by the tubercles in lupus. The ulcers of leprosy are soft, at times resembling syphilitic mucous patches; at other times, eaten away and without sensibility. The ulcers of lupus have indurated edges which are elevated, the bottom narrow and sinuous and giving rise to but little pain. In cancer the ulcer is large, with irregular fundus, covered or studded with papillary vegetations; as a rule, they are accompanied with much pain.

The cicatrices of leprosy and lupus resemble each other much in aspect and consistence; but may be distinguished from the fact that the former are deprived of whilst the latter retain the normal sensibility of the parts which they occupy. In cancer there is no cicatrization either complete or partial, or even temporary.

The author has given a good differential picture which cannot

fail being of the highest value to those who observe these affection but rarely. The paper though short is full of valuable points and we regret that our limited space forbids giving extracts at greater length.

Los cuadros de lepra, de lupus y de cáncer de la garganta son reproducidos con mucha fidelidad. Las descripciones del autor pueden resumirse como siguente:

La lepra aparece siempre en la piel ántes que en la garganta; el lùpus y el cáncer existen muchos veces en esta region, conservándose la piel sana. La lepra va precidada por una coloracion roja, que despues se vuelve blanca sin tumefaccion; el lùpus se desarolla en una mucosa que conserva todos los caractères normales; el cáncer se inicia por congestion, tumefaccion é incomodidad en la parte.

Los tubèrculos de la lepra son blancos, blandos, de volùmen variable; forman cadena ò rosario; la sensibilidad en ellos es la normal, ò está disminuida ò completamente abolida: los del lùpus son rosados ò rojos, duros, resistentes y elásticos; majoras que los de la lepra; poco numerosos y diseminados; por lo general indolentes: los del cáncer son rosados, rojos ò grises, duros ò blandos, sesiles y molestos por los dolores lancinantes que en ellos se despiertan.

Hay notable tumefaccion de la mucosa en la lepra; edema rojo y duro en el cáncer; estado normal de las partes que rodean á los tuberculos en el lupus. Las ùlceras de la lepra son blandos á veces parecidas á las placas mucosas sifilìticas; otras corroidas é insensibles: las del lùpus tienen los bordes duros y vados, el fonta estrecho y sinuoso, y ocasionan poco dolor: las del cáncer son anchas, de fondo irregular, cubiertes ò rodeadas de vegetaciones papilares: por lo comun despiertan grandes dolores.

Las cicatrices de la lepra y del lùpes se parecen mucho por su aspecto y consistencia; pero se distinguen en que las primeras son insensibles y las segundas conservan la sensibilidad propia del sitio que ocupan. En el cancer no hay cicatrization ni completa, ni parcial, ni siquiera temporal.

MEDIZINISCHE JAHRBUECHER. Herausgegeben von der K. K. Gesellschaft der Aerzte. Redigirt von Prof. E. Albert und Prof. E. Ludwig. Jahrgang 1882, I. Heft, 8vo., pp. 141. (Wien: Wilhelm Braumüller, 1882.)

TRANSACTIONS of the Royal and Imperial Society of Physicians. Edited by Profs. E. Albert and E. Ludwig. 1882, No. I., 8vo., pp. 141.

This is perhaps one of the most interesting numbers that has been sent out by the Society for a long time. Dr. N. Weiss contributes a paper upon Cortical Epilepsy, in which he gives the records of six cases which are very interesting. Dr. W. T. Councilman, of Baltimore, has a paper on Hyaline Metamorphosis of Miliary Tubercles in which he enters into the microscopic consideration of the subject illustrating it with plates.

The study of Acardiacs is taken up by Dr. Carl Breus and is very thorough. E. von Fleishl contributes a paper on the Theories of Color Perception. The concluding paper of the volume is On Fractures of the Pelvis, being an experimental research on the subject by W. Kusmin, of Moscow. This is an exceedingly instructive paper. The author made his experiments upon cadavers and after producing the fractures, he carefully dissected and noticed the lines of fracture in the pelvis. These are all shown in a couple of large plates. The direction and approximate force of each traumatism being given and the extent and direction of the resulting fracture being shown, it becomes apparent that a more accurate diagnosis can be arrived at in actual cases when a few data are given.

Following the papers we find the journal of the Society, which is a small weekly, giving a record of the proceedings, notices of papers to be read and an abstract of the discussions that have occurred on the different papers presented.

The editors can be congratulated upon the neat appearance of the transactions, and the Society upon the fact that so many good papers are presented to it. We always look forward to these transactions with pleasurable anticipations of a treat and we very rarely get disappointed.

Dieses ist eine der interessantesten nummern die wir seit welche zeit von dieser Gesellschaft erhieten. Ein Beitrag über Corticale Epilepsie von Dr. N. Weiss, mit Verzeichniss von sechs Fällen, ist höchst interessant. Dr. W. T. Councilman, aus Baltimore, trägt einen artickel über Hyaline Metamorphose des Miliartuberkels bei in dem er auf mikroskopische betrachtungen eingeht, dasselbe mit Tafeln illustrirend.

Dr. Carl Breus gibt einen ausführlichen Beitrag zur Lehre von den Acardiacis; E. von Fleischl eine Schrift über die Theorien der Farbenwahrnehmung. Ein Artickel über experimentelle Untersuchungen an Beckenfracturen von W. Kusmin, aus Moskow, volendet den Band. Dasselbe ist ein ausnehmend belehrender Beitrag. Der Verfasser machte seine Untersuchungen an Leichen, und beobachtete sorgfältig die linien der Fracturen in dem Becken, nach Producirung derselben. Dasselbe wird in zwei grossen Tafeln veranschaulicht. Die Richtung und annährende Kraft jedes Traumatismus gegeben, und die Ausdehnung und Richtung der folgenden Fractur gezeigt, es wird augenscheinlich dass man eine genauere Diagnose machen kann, nach dem einige Data gegeben sind. Nächst zu diesen Beiträgen, finden wir die Zeitschrift der Gesellschaft, ein Kleines Wochenblatt welche die Verhandlungen der Gesellschaft, Bermerkungen über vorgetragene Schriften und ein Auszug der dabei vorgekommen Erörterungen enthält. Der Redaction gebührt über das nette Aussehen der Abhandlungen alle Anerkennung, ebenso der Gesellschaft für die vielen werthvollen Beiträge. Wir sehen dem Erscheihen dieser Abandlungen stets mit freudigen Erwarten entgegen und haben uns dieselben noch sehr selten getäuscht.

Books and Pamphlets Received.

Article XVIII.

Materia Medica and Therapeutics, Inorganic Substances. By Charles D. F. Phillips, M. D. Edited and Adapted to the U. S. Pharmacopœia. By Lawrence Johnson, A. M., M. D. Vol. II., 8vo., pp. 340. (New York: William Wood & Co., 1882.)

Diseases of the Ear in Children. By Anton von Troeltsch, M. D. Translated by J. Orne Green, A. M., M. D., from Gerhardt's Handbuch der Kinderkrankheiten, 8vo., pp. 165. (New York: William Wood & Co., 1882.)

The Physician Himself and what he should Add to the Strictly Scientific. By J. W. Cathill, M. D., 8vo., pp. 194. (Baltimore: Cushings and Bailey, 1882.) From the author.

Annual Catalogue of the Missouri University at Columbia, Mo., 1881–1882. Founded 1820, Organized 1840. (Jefferson City: Tribune Printing Co., State Printers, 1882.)

Paper and Proceedings of the National Association for the Protection of the Insane and the Prevention of Insanity, at the Stated Meeting held in New York City, Jan. 20, 1882. (New York: G. P. Putnam's Sons, 1882.)

The Vest-Pocket Anatomist, founded upon "Gray," By C. Henri Leonard, A. M., M. D., Eleventh Revised Edition, Enlarged by Sections on the Anatomical Triangles and Spaces, Herniæ, Gynæcological Anatomy, etc. 24mo., pp. 82. (Detroit: Illustrated Medical Journal Co., 1882.) Price 75 cts.

Changes in Biological Doctrines during the Past Twenty-five Years. By Louis Elsberg, A. M., M. D. (Reprinted from the *College and Clinical Record.*)

Report of the Ear Dispensary, 6 Cambridge Street, Lothian Road, with a Periscope of Otology. By Dr. Kirk Duncanson, Edinburg.

The Announcement of the Woman's Medical College of Baltimore for the Session 1882–83.

Second Annual Catalogue and Announcement of the Albany

College of Pharmacy. Department of Pharmacy of Union University, Session of 1882–83.

Forty-First Annual Announcement of the St. Louis Medical College, Winter Session, 1882–83.

Genius Resistless: A Pindaric Ode, in Tribute to Jenner and Pasteur. By J. J. Caldwell, M. D. Baltimore, Md.: 1882.

A Contribution to the Subject of Nerve-Stretching. By William J. Martin, M. D. (Reprinted from the *Journal of Nervous and Mental Diseases*, Vol. IX., No. 1., Jan., 1882.)

De los Caractéres Clinicos que distinguen la Lepra, el Lupus y el Cáncer de la Garganta, por D. Ramon de la Sota y Lastra. Memoria leida en el Congreso Médico de Sevilla celebrado en el Mes de Abril de 1882. (Sevilla: Imp. de Gironés y Orduña, 1882.)

Small-Pox. By James H. Jackson. (From the *Laws of Life.*)

Does Vaccination Pay? By E. D. Leffingwell, M. D. (From the *Laws of Life.*)

Twenty-Second Annual Announcement of the Bellevue Hospital Medical College, 1882-1883.

Clinical Contributions to Electrical Therapeutics. By Romaine J. Curtiss, M. D., 8vo., pp. 52. (Reprint from *Peoria Medical Monthly*, 1881–82.)

The Experimental Method in Medical Science. Second Course of Cartwright Lectures of the Alumni Association, College of Physicians and Surgeons, New York, Delivered January 24, 31 and February 7, 1882, By John C. Dalton, M. D. 12 mo. pp. 108. (New York: G. P. Putnam's Sons, 1882.)

Practical Medical Anatomy. A Guide to the Physicians in the Study of the Relations of the Viscera to each other in Health and Disease and in the Diagnosis of the Medical and Surgical Conditions of the Anatomical Structures of the Head and Trunk, By Ambrose L. Ranney, A. M., M. D., 8vo. pp. 339. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

Static Electricity as a Therapeutic Agent. By James Knight, M. D. (A paper read before the New York Academy of Medicine, June 15, 1882.)

News Items.

Article XIX.

Capacities of Lungs.—Dr. Nagorsky, having measured the capacities of lungs of 630 boys and 314 girls in the schools of the district of St. Petersburg, now publishes the results of his investigation in a Russian medical paper, the *Surgeon*. He has found that the capacity of lungs, in relation to the weight of the body is 65 cubic centimeters for each kilogramme of weight in boys, and 57 cubic centimeters for girls. The law of Quetelet being that, with children below fifteen years of age, the weight of the body is proportionate to the square of the height, Dr. Nagorsky has found that it is proportional to 2.15 of the same; while the capacity of lungs is proportional to 2.4 of the height for boys, and to the square of the height for girls. Dr. Nagorsky's researches will soon be published as a separate work. As to the relation between the weight of man and the capacity of lungs, it is tolerably permanent, and its variations are mostly due to differences in the amount of fat in the bodies of different men.—[*Gaillard's Medical Journal.*

The British Medical Association will hold a Jubilee Meeting at Worcestor, August 8th, 9th, 10th, and 11th, 1882.

The Section of Otology promises to be very interesting. It is proposed to devote the Meetings of the Section on Wednesday and Thursday, the 9th and 10th of August, to the discussion of the following subjects:— 1. The connection between Diseases of the Ear and General Medicine. 2. Auditory Vertigo, especially in regard to the differential diagnosis.

W. Laidlaw Purves, *President*; J. J. Kirk Duncanson, P. McBride, *Secretaries.*

Please address: 22, Drumsheugh Gardens, or 20 Alva St. Edinburgh.

The State Medical Society of West Virginia had a most interesting meeting at Wheeling, May 25. Many good and valuable

papers were read and we regret that pressure of matter prevents our enumerating them.

DIPLOMA BEGGING.—The dishonest practices of Dr. Buchanan in relation to the diploma traffic, are yet fresh in the midst of all physicians, and notwithstanding the severity of his punishment at the hands of a merciless prosecution, his case should receive some consideratiou in the minds of honest men, when there are just as dishonest people willing to receive such bogus honors—men who would decry vehemently a breach of ethics in another form, whilst submissive to the intrigues and secret commerce of a cunning Professor. We have to cite a fresh case of *diploma begging* in the ranks of pharmacy, by a St. Louis pharmacist named Theodore Hoffman, who writes to the President of the California College of Pharmacy for a diploma to be granted to him at any price. He represents that he has not the time to attend a course of lectures in his own college, and that a foreign recognition would lend an additional value to his standing, and implores our college to issue him the requisite papers. We have noticed this publicly, trusting that it may receive the attention of the St. Louis pharmacists, and that as Dr. Buchanan suffered the reproach and condemnation of the entire fraternity of physicians, the applicant for fraudulent title should receive similar treatment from the whole brotherhood of pharmacists.—[*Pacific Medical and Surgical Journal.*

SURGICAL INSTRUMENTS IN THE TIME OF GALEN, A. D. 259–238.—We make the following extracts from an interesting article published by Dr. Mook, in *L'Union Médicale*, on a number of surgical instruments belonging to the Third Century, and found in excavations made in the Quartier St. Marcel, Paris, in October 1880. All these articles were contained in a round bronze vessel, in which two buckles and seventy-five coins were found The cutting instruments are represented by two double-edged knives with blades 2.5 inches long and light hexagonal handles of same length, the whole made out of one piece. Another instrument of similar form, but with blunt edges, must have served the purpose of a spatula. Still another, may have been used as a spatula, but it differs greatly from the above; its blade is 0.40 inch wide by 2 inches long, with a thin, round handle 0.04

inch thick, by 2.80 inches long, having at its end an olive-shaped ball 0.40 inch by 0.16 inch thick. The use of this is not very clear, it may have served as a probe, or even as a small cautery. Forceps are well represented. They are cut from a single piece of bronze, are beautifully finished, and have lost nothing of their elasticity. Two are pointed, and it would seem were intended for the extraction of foreign substances, or fragments of bone. Two others, respectively 5.6 and 4.8 inches long, have flat jaws, curved inwardly toward each other, and 0.20 inch wide. A number of serrated forceps affect different forms. Some resemble the two preceding ones, while others have one of their jaws curved at a sharp angle from the axis of the forceps; the serrations correspond exactly, and are models of fine workmanship. An instrument having the form of a small spatula 1.20 inches wide, is adapted to a tubular handle 7.20 inches long, and was evidently used as an insufflator, for the purpose of introducing remedial agents into natural cavities.

The use and preparation of ointments must have held an important place in the medical practice of those days. Five gilt bronze tubes, each six inches long, were used for holding ointments, one still contains some, which has been preserved by the oxide of copper covering its surface.

We must mention a long-handled, half spherical capsule 1.6 inches in diameter, having a beak for pouring out liquids, and used, no doubt, for warming ointments.

We must also notice an instrument so different from any now in use that it is hard to guess its purpose. It is eight inches long, formed of two branches, articulated like scissors and ending in a curved surface forming the fourth part of the circumference of an ovoid. When closed, this forms a space of 1.60 of an inch; the handles are ornate, and the articulation nearer to the serrated end. This instrument, when closed, can be safely introduced in cavities, and wounds, and when open, it can grasp bodies, or resect tissues as an *écraseur;* at the same time it may be used as a hæmostat, and for removing detached fragments lodged in its concave surface.

There is also a flat stone, probably used for spreading ointment, and on which to sharpen the different instruments. All these instruments are made of bronze, containing some silver, a fact which has, no doubt, contributed to their excellent preservation.—[*Med. and Surg. Rep.*

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—MAY, 1883.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	46.0	67.0	18	52.0	75.5
2	44.5	63.5	19	56.0	77.0
3	53.0	71.5	20	55 0	76 5
4	59.0	80.5	21	48.0	76.0
5	66.0	87.5	22	50.0	64.0
6	56.0	60.5	23	50.0	62.5
7	51.0	75.0	24	54.0	66.0
8	63.0	83.5	25	50.0	63.0
9	61.0	69.0	26	53.0	83.0
10	61.5	73.5	27	62.0	74.0
11	58.5	65.5	28	54.0	64.0
12	45.0	47.0	29	51.5	69.0
13	42.5	48.0	30	55.0	77.0
14	46.0	68.5	31	64.0	70.0
15	47.0	65.0			
16	45.0	64.0	Means	53.1	69.6
17	48.0	70.5	Monthly Mean.	61 3	

Quantity of rain, 3.81 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM MAY 6, 1882, TO MAY 27, 1883, INCLUSIVE.

Small Pox..... 1	Childbirth..... 2	Convulsions & Trismus Neonatorum 26	Syphilis..... 1
Scarlatina. 26	Inanition, Want of Breast Milk, etc. 5	Hydrocephalus and Tub. Meningitis.13	Apoplexy 5
Pyæmia & Septicæ 3	Alcoholism.. 4	Meningitis & Encephalitis 18	Dis. fem. gen. org.1
Erysipelas 3	Rheumat'm & Gout 0	Other Diseases of the Brain and Nervous System20	Surgical Operation 0
Diphtheria 21	Cancer and Malignant Tumor.... 14	Cirrhosis of Liver and Hepatitis ...11	Deaths by Suicide 5
Membran's Croup. 2	Phthisis & Tuberculosis, Pulmon 61	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 22	Deaths by Accid't 19
Whooping Cough. 4	Bronchitis.. 14	Bright's Disease and Nephritis...19	Deaths by Homicid 3
Ovarian tumor.... 0	Senility 15	Other Diseases of Urin ary Organs. 3	Congen Debr'ty 20
Measles 6	Pneumonia..... 87	Diabetes..... 0	Total Deaths from all Causes.... 512
Typhoid Fever....14	Heart Diseases ... 28		Total Zymotic Diseases 127
Cerebro Spinal Fev 3	Other Diseases of Respir'y Organs .17		Total Constitutional Diseases.....100
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers,14	Skin Disease..... 0		Total Local Diseases.....215
Puerperal Fevers.. 5	Marasmus—Tabes Mesenterica and Scrofula..... 7		Total Develop'tal Diseases 57
Diarrhœal Disea's 19	Other Const. Dis. 5		Deaths by Viol'ce 27
Other Zymotic Diseases 2			Unknown 0

CHAS. W. FRANCIS, *Health Commissioner.*

VOL. XLIII. AUGUST, 1882. No. 2

Original Contributions.

ARTICLE XX.

PROSTATIC HYPERTROPHY.—RETENTION.—PROSTATIC ABSCESS.—35 ASPIRATIONS OVER THE PUBES.—PUNCTURE OF THE BLADDER BY THE RECTUM.—FINAL SYSTEMATIC CATHETERIZATION AND BLADDER-WASHING.—INJECTIONS OF STRONG SOLUTIONS OF NITRATE OF SILVER INTO THE BLADDER.—RECOVERY. By W. HUTSON FORD, M. D. of St. Louis.

Philip C. aged 65, a farmer, has been affected with prostatic hypertrophy for eight or nine years. During this period has had several attacks of retention relieved by catheterism. He is a perfectly temperate man in every respect, well nourished and very strong. He has a large inguinal hernia, mostly irreducible, on the left side, of ancient date. About the 28th of December, 1879, his symptoms became aggravated. He was obliged to rise twenty times at night to pass water, and there was much pain and scalding in doing so, accompanied with deep pain in the perineum with a sense of tension and weight. A day or so after this he had a rigor followed by fever. The bladder was evacuated by the attendant physician with a Jacques' catheter and washed out twice daily. The introduction of even this soft catheter, as so often happens under like circumstances became more and more painful and difficult, so that I was invited to see him, and to conduct the case.

Incipient Cystitis.

Prostatitis.

January 15, 10 A. M.—His urine has been retained for 24 hours: All attempts at catheterization prove unavailing. Aspiration over the pubes with needle No. 2. 55 oz. of highly ammoniacal and turbid urine withdrawn. Ordered citrate of potassa; suppositories of opium, belladona, and camphor when the desire to evacuate is very severe. Bowels acting frequently in small operations.

Aspiration.

January 15th, 7 P. M. Aspiration over pubes to 40 oz. Beef tea, milk, ice, and a suppository as before.

January 16th, 9:30 A. M. Aspiration to 50 oz. Had passed an ounce of urine with great effort by the urethra.

January 16th, 7 P. M. Aspiration to 45 oz.. Passed 5 oz. urine by urethra since last visit. Several tolerably fæcal loose stools to-day. The prostate is very large, very tender, especially on the left. Has passed some blood and creamy stuff to-day, which may have been pus.

January 17th. Has passed five oz. of urine by the urethra. Aspiration at 9 A. M. to 40 oz.

January 17th. 4:30 P. M. Aspiration to 50 oz. Has passed about 8 oz. urine.

January 17th. 10:30 P. M. Aspiration. The polyuria is highly pronounced. No instruments could be passed into the bladder.

January 18th. Aspiration three times to-day. Nothing can be made to enter the bladder. There is no fluctuation or œdema in or around the prostate, recognizable by the finger. The total urine for the 24 hours is 130 oz.

Rupture of a Prostatic Abscess.

January 19th. Aspiration at 9:30. This morning at 3 A. M. while straining to pass water, about two teaspoonfuls of pus escaped in a sudden jet from the urethra, with a sense of sudden relief to the pain. Has passed 5 or 6 oz. of urine naturally. This gush of pus was doubtless due to the rupture of a prostatic abscess into the urethra. Ordered him to reserve the first portions of whatever passes, when he strains to make water. No attempt at catheterization.

January 19th. 4:30 P. M. Aspiration to 55 oz.

January 19th. 10:45 P. M. Nothing more like pus has passed to-day, but an ounce and a half of slightly bloody urine containing dark, shreddy matters was passed at 9 P. M.

January 20th. This morning he passed a considerable quantity of pus by the urethra, one or two tablespoonfuls in jets, when about to make water. The vesical tenesmus is not by any means so urgent. Water is interdicted. Milk diet. Takes some boiled beef and mutton and some oysters.

January 21st. Passed several drachms of muco-purulent matter by the urethra to-day, about daylight.

January 21st. 9 A. M. Aspiration to 45 oz. Catheterism proved impracticable, although several varieties of catheters were used, including coudée, soft, stiletted, and silver prostatic catheters. Nothing would enter the bladder.

January 21st. 4 P. M. Aspiration to 35 oz. Has passed an

ounce of purulent matter by the urethra. The first half ounce was very thick, somewhat bloody, and homogeneous. The remainder was a little mixed with mucosities and urine. He is considerably easier during the past three days, not suffering from such violent vesical tenesmus as heretofore. Although he has no fever, the skin is dry, and appetite almost abolished. He is taking quinine and iron, milk, boiled meats, eggs, etc. Is perfectly rational. Gets up and moves about his room. He still retains a large share of strength. There is no local soreness worthy of mention within or around the area just over the pubes (about the size of a quarter of a dollar) at which the repeated punctures for aspiration have been made.

January 21st, 11 P. M. Aspiration to 30 oz. More pus passed by the urethra. Hypoderm. morph. grs. ¼, as he needs sleep. Egg and whiskey at 3 A. M.

January 22. Passed a considerable quantity of pus by the urethra to-day and 11 oz. of urine naturally. Aspiration three times, respectively to 37, 32, and 30 oz. Total urine 110 oz. The polyuria has diminished. Hypoderm. morph. gr. ¼ at 11 P. M.

January 23d. Passed altogether to-day nearly 18 oz. of urine naturally, but with much thick pus in the first portions each time. Three aspirations to-day, respectively 30, 32 and 27 oz. Total urine 107 oz. Is free from pain. Appetite much improved. Takes an abundance of nourishment.

January 24th. Passed altogether 22 oz. of urine naturally. Three aspirations to-day. Total urine 103 oz. This morning after aspiration a formal attempt was made to enter the bladder by catheterization which totally failed. Appetite good. No fever or pain. Continues to pass pus, and much vesical mucus by the urethra. The swelling of the parts, as observable by anal touch is greatly less. Urine very ammoniacal and offensive. No great thirst.

Abortive attempts at Catheterization.

January 25th. Passed 22 oz. urine naturally. Aspiration at 9:30 A. M. to 22 oz. A fœtid stool or two. Ol. Ricini.

January 25th. 4:30 P. M. 9 oz. urine naturally; 22 oz. by aspiration. Oil acted well enough. Appetite not so good.

January 25th. 10:45 P. M. 16 oz. urine passed naturally; 23 oz. by aspiration. Total urine to-day 99 oz.

January 26th. 9:30 A. M. 16 oz. urine passed naturally.

Succeeded in passing No. 12 gum elastic catheter, with which another pint of urine was withdrawn and the bladder washed out with warm water.

Bladder washed out.

January 26th. 4:30 P. M. Tried to re-introduce the catheter but failed. Aspiration to 18 oz. Had passed 10 oz. naturally.

January 26th. 10:45 P. M. Aspiration to 19 oz. Passed naturally 10 oz. Total urine for the past 24 hours, 89 oz.

January 27th. Aspiration to 22 oz. Urine passed 24 oz.

January 27th. 8:30 P. M. Has passed 30 oz. naturally, did not aspirate. Prescribed some rhubarb pills.

January 28th. Has passed 55 oz. of urine by the urethra up to 9 A. M. this morning. Appetite good. Takes his laxative pills, quinine and iron, and alkali with pareira infusion.

Feb. 6th. Still passes all his urine except the residuum, without the use of the catheter, or aspiration, except on the night of Feb. 4th, when aspiration to 17 oz. was necessary. Nothing can be made to pass into the bladder, doubtless owing to the distortion of the passage caused by the swelling and abscess cavity, on which the points of all instruments are hopelessly caught. The urine remains highly offensive and turbid. There is a constant and abundant discharge by the urethra from the abscess cavity. The patient's general condition is not good. He is generally rational, but wanders at times, especially at night. It will be necessary to make a rectal opening into the bladder, so as to draw away the residual urine thoroughly. But no fluctuation due to fulness of the bladder can be distinguished by the finger in the rectum, as the suprapubic region is too tender to admit of a succussive impulse strong enough. Hence it will be difficult to place the point of the trocar properly in the rectum. He is now taking, besides medicine already mentioned, 30 drops of Jaborandi fluid extract at bedtime, and an equal quantity at 6 A. M. every day. These doses do not make him perspire very freely as a rule, but seem to induce quiet and sleep.

Feb. 6th. 9 P. M. Passed No. 12 Catheter. Drew off 10 oz. of turbid and and very fœtid urine. Washed the bladder and tied on the catheter. Anodyne suppository at bedtime. Jaborandi as usual.

Feb. 7th. 10 A. M. The catheter got clogged and so the

patient removed it at 12 P. M. last night. It could not be made to enter the bladder again. This morning the bladder was punctured by the rectum with an ordinary rectal trocar, no attempt being made to retain the cannula, in the assurance that with the difficulty of micturition by the penis, any opening made between the bladder and the rectum would before long open by ulceration sufficiently to allow urine to escape, as happened under similar circumstances in similar cases. Puncture of the Bladder by the Rectum.

Feb. 7th. 7 P. M. Aspiration to 16 oz. Jaborandi gtt. XXX at 9 P. M. and again at 10 P. M.

Feb. 8th. 10 A. M. Jaborandi failed to make him sweat. Epsom salts for constipation of some days standing. Aspiration to 12½ oz. Passes much pus by the urethra.

Feb. 9th. He is better. Passed fully a pint and a half of urine naturally, containing a large quantity of pus. The urine is red and offensive, hitherto it had been pale. Had a fluid action last night. There is very little pain on pressure over the pubes. Appetite good. Wine, quinine: Jaborandi made him sweat well last night.

Feb. 10th, 7 P. M. At 3 P. M. to-day the patient passed per anum two fluid ounces of urinous fluid showing multitudes of pus corpuscles and crystals of triple phosphate under the microscope. The orifice made by the trocar on the 7th has evidently become patulous enough by ulceration to allow a portion of the contents of the bladder to pass through it. To-day about 5 P. M. he passed a very small bilious semi-solid stool. Passes his water, *per urethram*, this evening with much less straining. The recto-vesical opening will certainly increase in size, and will greatly relieve the bladder, prostate and urethra, the latter by the avoidance of frequent catheterization. Is taking soda in pareira infusion and quinine; jaborandi gtt. XXX at 9 P. M., and again at 10 P. M. if he does not sweat. His nourishment consists of beef-tea, milk, broths, oysters and some sherry or hock. No fever. Said this morning he felt better than for several days past. Pulse 80, of good volume though rathe weak. Improvement.

Feb. 12th, 10 A. M. Jaborandi produced substantial sweating last night. There is now a constant leakage of the bladder into the rectum. As it passes almost unconsciously by the anus,

he is directed to keep pads of oakum ready to receive it. The anus is loose and patulous. There is some rectal irritation.

Feb. 13th, 9A. M. Could not get rid of his urine last night on account of obstruction of the recto-vesical opening. Aspiration to 16 oz.

Feb. 13th, 7 P. M. Has been passing his water almost entirely by the rectum. Says he feels easier than for a long time past. Jaborandi; quinine; wine. No fever. Pulse quiet; appetite good. Tongue soft and nearly natural. He sleeps a good deal but is quite rational at all times.

Feb. 14th. Passes *all his water by the rectum* since last night. Bowels moved once.

Feb. 14th, evening. Passes all his urine by the rectum. Has made no attempt to urinate by the urethra. Retains the rectal accumulation, or more probably, the urine is not constantly dribbling into the rectum, but is only forced into it when a desire to make water comes on. Sat up twice to-day before the fire for the first time since December.

Feb. 14th. Tongue nearly or quite natural. Feels altogether better. No pain. The tenderness of the supra-pubic region is greatly diminished. Jaborandi gtt. xl at 10 P. M. Quinine and wine. Appetite very good. His nourishment is abundant and his food nearly that of a healthy man, both in kind and quantity.

All urine passed by the rectal opening.

Feb. 15th, 10 A. M.. Passes all his urine by the rectum. Has sat up already this morning, and will do so again to-day. Cont: Quinine and iron: wine and jaborandi. No restrictions on his diet.

Feb. 21. Has passed all his urine by the rectum since the 13th inst. *No rectitis.* Is feeling greatly better. No vesical tenesmus. Scarcely any pain in the supra-pubic region. No discharge by the urethra. Appetite good. Tongue fairly clean.

Feb. 24th. All the urine is still passed by the rectum. He has still further improved. No pain or tenderness along the pubes. Urination by the rectum very frequent. No attempt to pass a catheter has been made since the 13th inst. He is much better at all points.

March 8th. Still further improved. Goes down stairs and walks about the premises. Says he has no trouble, except that he has to pass his water wholly by the rectum, fifteen or sixteen times at night and half as often by day. An attempt at catheterization

to-day failed. Not a drop of urine has been passed by the penis since the 13th of February.

March 9th, 10 A. M. Succeeded in passing a No. 9. F. gum catheter. The bladder was emptied and washed out. The urine was *found nearly normal and devoid of odor.* About 4 oz. was withdrawn through the catheter. The treatment will now be to endeavor to practice systematic catheterization and washing out of the bladder twice a day, until he learns to introduce the catheter himself.

Resumption of systematic catheterization and washing.

March 9th, 9 P. M. The catheter would not pass.

March 10th, No. 12 F. catheter passed. Bladder washed. Urine contains very little mucus; but is slightly ammoniacal.

March 24th. Continued to improve. On the 16th of March a gum catheter was passed and since this the bladder has been washed out twice a day with Thompson's fluid. Yesterday passed a No. 15 F., soft rubber catheter and tied it in for 11 hours. This morning the same catheter would not pass, but a gum catheter with stylet passed. The urine withdrawn is of better color than hitherto, and almost wholly devoid of odor.

March 31st. Since the last note the bladder has been washed out twice a day with plain water. The patient has occasionally passed a soft catheter during the day and night to empty the bladder, but not with any regularity. The urethra is so long, as is often the case in chronic prostatic affections, the hernia with irreducible epiplocele filling the scrotum on the left side, while the neck of the bladder is so much elevated by the overgrown prostate, and rendered excessively difficult to reach by reason of the cavity left by the prostatic abscess, that catheterization is very difficult. The patient is very soldom able to pass a catheter by his unaided efforts. I am able to pass the catheter myself easily enough now, having learned the difficulties. I can now pass a 21 F. gum catheter with a stylet but the curve has to be very sharp, even recurved. In consequence of the frequent catheterization the urethra has become very sore and the cystitis seems to have been increased, following the course of things so commonly observed in case of prostatic hypertrophy where a patient is first learning to pass a catheter, or where the medical attendant has begun to treat an existing cystitis by catheterization and washing. The patient has not been out of

Catheterization irritates the urethra.

bed for ten days, and although not failing, is very weak, and almost without appetite. Under the circumstances, I decided to use strong injections of nitrate of silver into the bladder and urethra.

Injection of Nitrate of Silver 5 grs. to 1 oz.

March 31st. 7 P. M. The bladder having been emptied and washed out, two ounces of a solution of nitrate of silver of the strength of five grains to the ounce were injected into the bladder, the catheter being withdrawn during the process so as to allow a portion of the injection to come into contact with the urethra. After a minute or so the catheter was pushed back into the bladder and the injected fluid allowed to escape. The bladder was then washed out with warm water. Hypodermic morph. under skin of abdomen was given him, and also a glass of strong whiskey and water. The pain was quite severe and lasted about twenty minutes. The bladder washings were intermitted for 36 hours. Within a day or two after, he began to feel stronger and sit up, passing his catheter and washing out the bladder twice a day, and drawing off his urine twice by night, and once, and at last twice by day, making altogether five or six insertions of the catheter during each twenty-four hours. This point was only attained after the most assiduous attention and care by the use of a Mercier sonde coudée into which I introduced a stylet made of the flexible wire mandril of a dentist's engine. This formed a spring so that the point of the catheter was made to hug the anterior and superior wall of the urethra and so glide directly towards the bladder opening without danger of falling into the abscess cavity. The urine is pale and too abundant. Sounding determined the absence of stone in the bladder.

April 9th. He has begun to have some recurrence of pain upon catheterization and after micturition. An injection of two ounces of Nitrate of Silver solution of the strength of fifteen grains to the ounce was made as before. The injection was retained about three minutes and then washed out. The pain was not comparable to that ensuing upon the first injection, and no anodyne was given.

2nd Injection of Nitrate of Silver gr. xv to 1 oz.

April 10th. This morning he feels well; slept well last night has even been down stairs. Is greatly improved since the first of the month.

April 15th. On calling to-day, I find he is gone out on business. He is greatly better.

April 30th. Has gone regularly to his business. Has learned to pass his catheter without difficulty, washing out the bladder twice a day. He is very greatly improved and is nearly as strong as he was before being taken sick.

Case dismissed.

July 15. Has been continuously at work. Is cautioned as to the necessity of washing out the bladder, at least once a day, in order to prevent incrustations and the formation of calculus. The fistulous orifice has long since closed perfectly.

Aug. 29th. Looks well. Brings me a sample of his urine which is very pale and abundantly passed, of sp. gr. 0.0012, alkaline reaction, faintly disagreeable odor, cloudy with shreddy particles suspended in it, and depositing some isolated masses of muco-pus. His legs are quite œdematous, up to the knees. Ordered bandaging. This swelling of the legs can only be attributed to the pressure of the enlarged prostate upon the iliac veins as the heart is not affected. He has been using a Mercier catheter coudée with a spring in it, but these catheters last him only a week or so, losing their polish, so he will have to get a silver catheter. He cannot make the common Jacques' catheter enter the bladder at all. Continues to wash out the bladder once a day.

Œdema of the Legs.

Sept. 1st, 1881. Calls to say that his Mercier coudée catheter wears out very fast, lasting scarcely more than a week. A No. 20 pure silver catheter is ordered for him. His urine is pale and turbid.

Sept. 1st, 1881. Has been in excellent health during the past year never passing water but through his catheter. Continued the washing of his bladder up to about the end of May last. Of late has been troubled with turbidity of urine and more frequent urination. He looks well, strong, and fat, walks down to his business two miles every morning. Is directed to resume the washing of the bladder at once and to practice it twice a day. He is again warned of the probability of a formation of a calculus, unless he washes his bladder properly and regularly. He is still obliged to use a common gum catheter with the elastic stylet I improvised for him, made of the flexible spiral rod of a dental engine.

Restoration to vigorous if not complete health.

June 10th, 1882. The patient continues quite well and strong. His hernia is all that troubles him. He depends however entirely upon the catheter for micturition.

Translations.

Article XXI.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Lumbar Colotomy for Epithelioma of the Rectum.—M. Trélat has been a patient upon whom, six months ago, he operated for lumbar colotomy the removal of the epithelioma of the rectum not being possible. Since that time the patient has notably improved. There exists no sign of a cachexia, the digestive functions are carried out well, and the lumbar anus is of no inconvenience because of the great cleanliness observed. The operator has seen sixteen cases of cancer of the rectum in two years; and none of the curative operations gave as good results as by the above methods. The following are two characteristic cases.

In a man, a very early diagnosis of epithelioma of the rectum was made. The tumor was very limited and accessible. The removal was complete; the patient appeared in the best condition for a cure; at the end of five weeks there was a recurrence and since, several operations have been performed.

In another patient the tumor formed an irregular ring, three to six centimeters above the anus. Complete removal of the tumor was possible, and was made with the greatest care, but the cancerous mass had to be followed upon the anterior face of the sacrum. The patient died on the ninth day of pelvic cellulitis.

The palliative operation has given better results than the curative in one case. Total removal of the inferior part of the rectum is a dangerous operation, notwithstanding all the precautions that may be taken.—[*France Médicale.*

Laparotomy.—Removal of Fœtus Eight Years after Con-

CEPTION.—M. Fort, Brazil, had a mulatto, aged 35,who presented herself to be relieved of a tumor which was not only inconvenient but prevented her from working and rendered life intolerable to her. Has had three children, but no pregnancy since she carries the tumor. The history is that she thought herself pregnant, eight years ago, and made all the necessary preparations for the time of delivery. The movements of the child ceased gradually, and there remained a tumor.

The tumor is hard, rock-like, presenting an irregular lower margin, under which the hand may be passed. The size is about that of an adult head.

The functions are regular and pain was the only symptom present justifying an operation. The uterus was normal and mobile. Laparotomy was performed on Jan. 26 and Feb. 11 she was discharged cured. On the day after the operation the breasts began swelling and on Feb. 10, she drew a half cup-full of milk.

The tumor contained a fœtus slightly atrophied and undergoing fatty degeneration. No trace of amniotic fluid. The amnios and chorion, the latter hypertrophied and more than 1m.m. thick, form a complete envelope for the child and resemble a thick parchment and bridging all interstices of the fœtal parts gives the appearance of an irregular fibrous tumor to the whole.

This membrane was very adherent to the back of the fœtus. A small cord, like a string, extended from the umbilicus to the chorion, where could be seen filaments (remains of the placental vessels) spreading and diverging.

The fœtus was placed crosswise, head to the right, face forwards, strongly bent on the left side so that the knee touched the cheek. No ossification existed outside of the osseous skeleton. The case is rare. Attention is called to the absence of any placenta and to the rapidity of recovery.—[*Gazette des Hôpitaux.*

CEREBRAL LESIONS IN A CHILD BECOMING IDIOTIC.—M. Bourneville had an idiot, aged 5, which presented interesting cerebral lesions. Up to the present, idiocy has been considered as a result of an arrest of the brain, of a hydrocephelus, or of an atrophy of a part of the convolutions. In some we find atrophic sclerosis of the brain, in others, the opposite, hypertrophic sclerosis. But, there are still other lesions giving rise to idiocy.

There is generalized chronic meningo-encephalitis; to see those brains makes one think of a general paresis. Such is the case which M. Bourneville brings before the Société de Biologie. The child five years old, issue of cousins german, but without hereditary antecedents, presented nothing particular until 14 months old. At that age it had convulsions, and then nothing further until it was three years old. At three years and six months, very strong convulsions accompanied by cyanosis; after this second convulsive attack the child became idiotic, could not walk, became irritable. Recently, it had another convulsive attack, with cries, nystagmus, etc., and died.

At the autopsy, lesions of meningo-cephalitis were found over all the right hemisphere with the exception of the ascending frontal, ascending parietal and paracentral lobe. On the left the lesions are more pronounced at the frontal lobe. The motor layers are almost intact. The encephalon weighed 810 grams.—[*Paris Médical.*

STUDY ON HYPNOTISM.—M. Dumontpallier observed in his a service a case of lethargy determined by fright. The patient was in a nervous state entirely comparable to lethargy experimentally provoked, and had neuro-muscular hyperexcitability; but she had retained hearing and memory during her sleep. Awakened in a few seconds by the action of a look upon her closed lids, she could tell all she had experienced, that is to say, the absolute muscular paralysis which ruled her as also the impossibility of making it understood that she heard all and was only apparently dead.

Experiments have been made upon this patient which permit the formulation of the proposition of the independent functional activity of each hemisphere, which will lead to further interesting researches.—[*Progrès Médical.*

ANTIASTHMATIC MIXTURE.—M. Huchard of the Hôpital Tenon employs the following especially when the symptoms of bronchial catarrh are added to the attacks of asthma.

℞ Distilled Water.....300 parts.
Iodide of Potassium
Tincture Lobelia.
Tincture Polygala of each.....10 parts.
Extract Thebaic.....1-10 parts.

A tablespoonful to be taken night and morning.—[*Journal de Méd. et de Chirurg. Prat.*

TEMPERATURE IN BATHING.—M. Aubert lately wrote a communication on the multiple reactions produced by taking a series of cold baths separated by short intervals passed out of the water. The result of the temperature curves is to show that a rise of central temperature upon entering the cold water may be obtained several times in succession, and also the fall of that temperature upon emerging from the water.—[*Lyon Médical.*

A HAPPY thought has occured to the civil authorities of Brussels which is well worth the consideration of the city fathers of this ceuntry. Whenever the birth of a child is registered in that city, the parents at once receive a pamphlet containing plain and concise directions for the care and hygienic management of children. Here is a grand field of work for State and local boards of health.

A NEW FUNGUS.—The *Gazette Médicale* states that M. Pasteur has found an organism in the blue and green discolorations which are sometimes seen on old surgical bandages, which preserved through many cultivations the same characters and properties. In consists of colorless globular colls, from $\frac{1}{1000}$ to $\frac{5}{1000}$ of a millimeter in diameter, and has the power of secreting a pigment, which may easily be dissolved out by chloroform. The blue, or pyocyanine is reddened by acids, and restored by alkalies. Dissolved in a weak acidulated solution, neutralized by potash, and treated again with chloroform, pyocyanine yields a pure blue liquid, from which, after evaporation, it appears in the form of crystals, sometimes as prisms or matted needles, at others as rectangular plates. The watery solution of pure crystaline pyocyanine is neutral, and is unchanged by boiling.—[*Med. and Surg. Reporter.*

Article XXII.

FROM THE ITALIAN.

Charcot on Spinal Localizations. (Paris 1878-1880.) Review by the Milan Hospital Gazette. [Translated for the Journal.] From *Il Pisani, Sicilian Gazette.* By Joseph Workman, M. D., Toronto, Canada.

(continued.)

Myopathic contractions may be perceived even on the anatomical table, because in these the contractured muscles, instead of being found unaltered, or simply emaciated, appear cirrhotic. The contracture of hemiplegics is not therefore a passive rigidity; it corresponds to a state of permanent muscular activity which finds no analogy with normal phenomena, except that with the muscular tonus, dependent on a permanent stimulation exercised by the medulla spinalis (Vulpian).

Boudet and Brissaud have established that whilst the muscle that is nominally contracted (a phenomenon which cannot last longer than 15 to 20 minutes), produces a number of regular, sonorous *roulement* (rolling?) produced by the number of its vibrations; the contractured muscle produces only a surd, irregular, interrupted, intermittent one, so that it appears as if the muscular fibres entered into activity one after the other, in continuous supplementation.

The hemiplegic contracture continues throughout life or for long years. It frequently, however, happens that the muscles at last end in atrophy; then, rigorously speaking, muscular spasm no longer exists; but the attitudes, so long maintained, may still persist; the ligamentous parts being shortened and the articular surfaces accommodated to their new situation. Some authors, however, think that contracture may disappear before muscular atrophy. But this happy event is very rare, and is due to processes as yet almost unknown.

The spasmodic hemiplegia of infancy, produced by destructive alterations of the cerebral cortex of one hemisphere in the

motor-zone, and consecutive descending degeneration of the corresponding pyramidal fasciculi, has the same characters as the hemiplegia of apoplectics, only that there is almost constantly established a shortening of the paralysed limbs, and sometimes of the paralysed side, and the trunk is completely developed, the thorax is narrow, and the pelvis contracted and oblique.

Hitzig, having observed that contractures frequently diminish with repose in bed and sleep, and augment when the muscles of the non-paralysed limbs contract, facts considered with reason as synkineses, or associate movements exaggerated by a morbid condition, imagined a mechanism that might enable us to understand why the contracture is aggravated under the influence of voluntary movements, but which did not explain why this contracture, as happens in the greater number of cases, is permanently established.

In order to give the physiological explanation of the contracture, which almost always corresponds to a degeneration of the pyramidal fasciculi (consisting from the first in atrophy of the nervous tubes which are governed by their trophic centers but afterwards, towards the second or third month, in an irritative process seated in the connective tissue, and which is legitimately denominated *sclerosis*), Hitzig states first of all the very close anatomical relations that seem to subsist between terminal extremities of the nervous fibres of the pyramidal fasciculi and the motor cells of the anterior cornua in the entire height of the medulla spinalis, and he proposes to admit that an irritative lesion, of which these nervous fibres are the seat, in the path of destruction, exerts an influence on the gangliar element. This communicated to the motor cells, different from those cases of greater gravity, in which a species of anterior polymyelitis is produced, and a consequent muscular atrophy in the paralysed members (lateral amyotrophic sclerosis), this lesion should be purely dynamic, not accompanied by any material alteration appreciable with our means of investigation, comparable to the modification produced in these elements by strychnine (intoxication poisoning) but with the difference, that the lesion of strychnine is a phenomenon essentially transitory, whilst this persists permanently. The irritative state being once admitted it may be likewise admitted that it does not remain localized in the gangliar motor element, that it extends by diffusion to the other gangliar elements of the region, with

which it presents anatomical connections more or less direct by means of the nervous net-work of Gerlach. In this manner the æsthesodic cells, which are supposed to be the principal termination of the centripetal nervous fibres, must be in their turn seized by irritation. Now, the motor or kinesodic cells, and the sensitive or æsthesodic cells constitute the central part of the diverse dicistaltic systems, by means of which the spinal reflex acts are accomplished, and in consequence of the supposed lesion, the properties of this system must be exalted. This being the case, the slightest excitations which come from the periphery, influencing the central parts of the diastaltic arcs, must be manifested with the reflex phenomena more energetic than usual.

Thus the permanent excitations that emanate, in the normal state, from the muscles and their aponeuroses, determine the phenomenon of the incessant reflex activity known under the name of *tonus*, the physiological expression of which is a slight and permanent contraction, very intense, which in a certain measure represents the muscular tonus driven to its maximum; such should be the cause of the permanent contracture of hemiplegics.

Resting then, on considerations of the clinical order, the author observes that the divers modes of spinal reflex activity, distinguished by pathological analysis seem to be represented in the gray substance of the medulla spinalis, by as many distinct diastaltic systems. Observation in fact, demonstrates that if the divers modes of reflex activity can be taken on simultaneously and in the same degree, they may likewise be lesed separately. In locomotor ataxia, the cutaneous reflexes ordinarily persist, and are also sometimes exaggerated, whilst the tendon reflexes and the muscular tonus soon disappear. On the contrary, in hysteria with hemianæsthesia, the tendon reflexes of the side corresponding to the hemianæsthesia, are shown very conspicuously, whilst the cutaneous sensibility is null, excitations, even the most violent not being followed by any reflex movement. In a lasting hemiplegia depending on an organic focal lesion on the course of the pyramidal fasciculi, the diastaltic systems are affected, but unequally; the tendon reflexes, and the tonus principally, which is a connected phenomenon, are excited to a very high degree.

Various clinical phenomena find, in such hypotheses, a ready

interpretation, as the influence of strychnia, of faradization and of wounds in the development of contractures. All the gangliar elements of the spinal grey substance are, without doubt, simultaneously affected by strychnia introduced into the circulating blood; but those which are the most excitable naturally re-act first. The influence of traumatism in the development of contracture is explicable in much the same manner.

If, then, it be supposed that the gangliar irritation is diffused, by the way of the commissures, from one grey cornu to the other, it will be understood in what manner the voluntary excitations which reach the grey substance, for example of the left cornu, act upon the right cornu and determine thus either an involuntary homologous movement, or an aggravation of the contracture. It will, in like manner, be understood why aggravation of the reflexes and also contracture may, at a given time, be produced on the sound side.

Article XXIII.

FROM THE PORTUGUESE.

Study of the Etiology and Nature of Beriberi. By Dr. A. Pacifico Pereira. Translated from the *Gazeta Medica da Bahia*, for the Journal. By Joseph Workman, M. D., Toronto, Canada.

(CONTINUED.)

The alterations revealed to us by the examination of the blood of beriberics, especially in the globular part, which has as its capital function the carrying of oxygen, and thus serves as the medium of the intimate relations between the anatomical elements of the textures and the liquid which carries the nutritive material, offered satisfactory explanations of many of the phenomena observed in the symptomatology of beriberi, the interpretation of which have appeared difficult.

The alterations which are observed in the numbers, form and size of the blood globules, the presence of micrococci in the liquid, and the alterations met with in the anatomical and histopathological examination, in the autopsies made by us, have led us to believe that this degeneration in the globular part, due to an imperfect oxygenation of the blood, resulting from climatologic and local circumstances, has an important part in the phenomena of asphyxia and paralysis which characterize the disease.

The fact is now recognized in pathology, that an intimate relation exists between the fatty metamorphosis of the textures and the pathological processes in which there obtains a modification of the blood, which attacks its globular element and affects its trophic properties, thus producing either a diminution of the red globules, or alterations in them, and thereby disabling them for the action of the oxygenation, on which depends the physiological regeneration of the textures. Clinical observations show, that this structural alteration is common, in general, in anæmias and especially in the pernicious anæmia, and that a point of

affinity exists between this disease and beriberi, alterations of the blood, and imperfect oxygenation of the textures.

The distinguished clinic, Sydney Coupland, in the Zulstonian lectures on anæmia (*British Med. Journal*, April 25, 1881,) writes as follows:

"When a tissue is deprived of nutrition, it suffers this degeneration, because its albuminoid particles are converted into fatty granules. This is the most simple example of retrograde metamorphosis of tissue, and it takes place as a physiological result in natural decadence. Pathologically, though no texture is exempt from this form of degeneration, the muscles are more particularly subject to it, and this greater susceptibility is without doubt, due to the muscles being so actively engaged in the metabolic processes of the body. Deprived of their due provision of oxygen, their protoplasmal elements are rendered incapable of passing through their normal tranformations, and instead of staple, complex products, they are segregated into fatty molecules. This conversion may be effected with notable rapidity; this fact is evidenced by the extensively spread metamorphosis in acute poisoning by phosphorus, in which it may be manifested within a day or two; and in such a case I believe that the alteration is produced by privation of oxygen, and a perturbation of the normal texture giving place to degeneration. More frequently, there is reason to believe, the process is slower; but however important may appear the determination of this question, I judge it not yet possible to make it."

This regressive metamorphosis of textures, demonstrated by Kleby, Frankel, Bauer, Lewin, Leydan, Mosler, Northnagel and other pathologists, in cases of poisoning by phosphorus, arsenic oxide of carbon, ether, chloroform, etc., is explained by the deficiency of oxygen, and the alteration of the elements of the blood which serve for its carriage; the same degeneration was demonstrated by Lytten, in animals which succumbed under the action of a high temperature, through *famine of oxygen*, in which the globules of the blood were found notably altered; and it is also this degeneration which appears as one of the most constant anatomico-physiological results in cases of profound anæmia, especially the pernicious; it has been attributed by the mostdistinguished pathologists and clinicians, who have occupied themselves in the study, to deficiency in the supply of oxygen, from diminution and alteration of the globules, which

are the agents of transport of this regenerating element of the textures.

In beriberi the phenomena are linked in an unbroken chain leading to crescent anoxæmia, with a symptomatic asphyxia and progressive paralysis, which characterize the disease.

In the first place, there is a notable diminution in the normal proportion of oxygen, from the action of a high temperature and an elevated hygrometric degree of the atmosphere, aggravated by special circumstances in the individual and the locality in which he lives. Next, the alteration in the globular part of the blood, rendering it unable to serve as the normal vehicle of oxygen, and the intermediary of the chemical mutations necessary for the physiological regeneration of the elements of the textures; and lastly the dystrophia, especially that of the muscles, with the metamorphosis resulting from anoxæmia, which is gradually developed from the extremities to the center, as is natural, because it is at the periphery that the defect in oxygenation is first felt.

Proceedings of Medical Societies.

Article XXIV.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, May 6, 1882.

An Inquiry into the Cause of the Rhythm of the Heart, by R. S. Anderson, M. D.

Mr. President.—This question has engaged the attention of physiologists of all time and the insufficiency of the conclusions reached is evident to the most cursory glance. Most vital processes are continuous, others are voluntary and others again remittant, depending on occasional stimulation from well-known causes. Continuous contraction exhibits in the sphincters, their relaxation occurring only when overcome by pressure or voluntary muscular action greater than their own. In the heart we have the only example of a regularly intermittent involuntary action, entirely independent of the will. By some writers this peculiar force of the circulation has been referred to independent ganglionic nerve action through the sympathetic and its branch-gangiia connected with the cardiac plexus. By others it is vaguely called a peculiarity of vital action or an irritability inherent in the heart. Another favorite theory is, as we shall see later that it is owing to the stimulating effect of the blood upon the lining membrane of the heart. With this premise let me open this communication by a few quotations from such works as I have been able to consult on the subject.

Flint, Vol. I., p. 220, *et seq.*, says: "The phenomena attending the action of the heart present few difficulties in their investigation compared with the study of the cause of the regular contraction and dilatation, which commences early in fœtal development to terminate only with life. This interesting question has long engaged the attention of physiologists and has been the subject of numerous experiments and speculations. It would be idle

to follow the various theories which have been offered to account for the continual movements except as a subject of purely historical interest, for many of these are based upon a very imperfect knowledge of the phenomena of the circulation and have fallen to the ground as science has advanced. At the present day, though we are as far perhaps as ever from a knowledge of the actual cause of the regular movements, we are perfectly well acquainted with the various conditions which modify and regulate them and have arrived at a limit of knowledge which there seems little prospect of exceeding. The enthusiastic dreamers of past ages hoped to discover the seat of the soul and arrive at the principle of life, but we are as much in the dark as were they in regard to the cause of the various vital phenomena. We know for instance how to produce contraction in a living muscle or one just separated from the organism, and which has not yet lost its vital properties, but we must confess our utter ignorance when we ask ourselves why it acts in response to a stimulus, etc. The wonderful advances we have made in chemistry and microscopic anatomy do not disclose the vital principle and when we come to examine the various conditions under which the heart will continue its contractions, we are arrested by the impossibility of fathoming the mystery of the *cause* of the contraction. The heart is anatomically very like the voluntary muscles but it has a constant function to perform and will act without any palpable excitation while the latter, (the voluntary muscles) have only an occasional function and act only under the influence of natural stimulation like the nerve force or artificial irritation." Again he says, "The regular and powerful contraction of the heart is *provided for* by the circulation of the blood through its *cavities*." And again, "Blood in contact with the lining membrane of the heart acts as a stimulant in a remarkable degree and is even capable of restoring irritability after it has become extinct. The passage of the blood through the heart is the natural stimulant of the organ and may be said to be the *cause of its regular pulsations* though it by no means endows the fibres with their contractile properties." Here we see that after all his disclaimers above noted he finally boldly says that the contact of the blood with the lining membrane of the heart is the cause of its rythm.

Todd and Bowman, (Physiology, page 182,) says: "The cause of the rhythm it is exceedingly difficulty to resolve. This variety

of contraction is coincident with periodic distention of the cavities and impressions on this lining membrane. But it continues long after the heart is empty and its nerves cut. Hence, whatever share these circumstances may have in giving the rhythmical character in the natural condition of the part, they are certainly not essential to each individual pulse. It is singular that a mechanical stimulus applied once to the heart will often excite a series of contractions after they have ceased, or modify the rhythm of those previously existing; its effect being thus prolonged through many beats." Valentin's Text-book of Physiology, page 530 *et seq.*, discusses and rejects the theory of the peculiar actions of the heart being caused by the independent influence of the ganglionic system of nerves forming the cardiac plexus and remarks, "Physiology cannot explain all the mysterious phenomena exhibited by the movements of the heart."

Foster, the author of a late English text-book on physiology, does not himself offer any theory on the subject but quotes Brücke, a German authority. I beg your close attention to this extract, as it is the nearest approach to the anatomical facts involved that I have met with in any of the works consulted. Foster says: "An ingenious view has been put forward by Brücke concerning the action of the semilunar valves. He maintains that during ventricular systole the flaps are pressed back flat against the arterial walls and in the case of the aorta cover up the orifices of the coronary arteries, hence the flow of blood from the aorta into the coronary arteries, can take place only during ventricular diastole, or at the very beginning of the systole, and not at all during the systole itself. The object of this is twofold. In the first place, the muscular tissue of the ventricle is not burdened with blood at the moment it is undergoing contraction, but receives its nutritious supply during the phase of relaxation, hence the whole force of the contraction of the ventricular fibres is spent on the contents of the cavity and none of it is wasted in the compression of the intra-muscular blood-vessels. In the second place, the effect of the flow at the close of the systole into the previously emptied coronary arteries is to unfold, so to speak, the collapsed cavities of the ventricles, very much in the same way as the collapsed cavity of a double walled ball may be reinstated by the forcible injection of fluid into the space between." The anatomy here mentioned is good and valuable, but the reasons deduced therefron " most lame and impotent," as I hope

to show further on. Foster combats this view of Brücke's. He, however, notes an experiment of the latter in which fluid was injected through the pulmonary veins into the left auricle of a pig's heart, in which the coronary arteries had been cut in their course and in which it was found that during the systole of the ventricle no blood whatever was ejected from the cut artery which remained empty and collapsed at that time. I ask you to bear in mind this important fact.

That elegant and philosophical writer, Draper, (Physiology, p. 448) hits near the truth in a general way as follows: "If the cessation of contractility arises from the momentary accumulation of the products of waste and the capacity for its renewel is due to the restoration of the original state by nutrition, rhythmic action may follow as the consequence of an arrangement of muscular fibrils with an adjusted supply of arterial and venous capillaries. An original excitation producing a contraction cannot act in a permanent way for the result of that contraction is the production of an accumulation of wasted material which must be removed. It may require but a moment for the removal to take place to a sufficient extent to enable the original disturbance to act once more and be checked in its action again. Whatever value there may be in such explanations as this, they undoutedly gather a deep interest from thus enabling us to comprehend that it is possible to resolve such mysterious phenomena as rhythmic periodicities with the results of ordinary mechanical laws."

To prove that this arrangement of mu cular fibrillæ, arterial and venous capillaries, apparatus for suddenly supplying and cutting off nutrition and removing waste rapidly does exist in the heart and that by their harmonious action the rhythm of the heart is "reduced to the result of ordinary mechanical laws," is the object of this inquiry. The anatomy noted by Brücke and physiology above quoted from Draper, may have already given you the idea which I desire to elaborate. To this end let us first briefly examine a few points in the anatomy of the organ. The arrangement of the muscular fibres in the heart is very peculiar. Without attempting a particular account of their course we may state that they do not preserve the same parallelism nor extend straight between two points as in the voluntary muscles, but twine around one another and around the organ in a very intricate and more or less spiral manner. Most of them come from the tendinous cord encircling the orifices of the

ventricles and after winding through their walls return either to some part of the semicircle of tendons or end as one sort of columnæ carneæ in the ventricle by union with the cordæ tendinæ. Thus we have an admirable arrangement for not only compressing and obliterating the cavity of the ventricle, but what is of equal importance, for equally and uniformly compressing its own muscular substance upon itself, and thereby expelling any fluid that substance may contain. In this contraction the heart twists upon itself. Harvey says, in his celebrated description, "it is everywhere contracted (in the systole) and hardened, but especially toward the sides so that it looks narrower, relatively longer, *more drawn together.* Vesalius, Fontana and Riola contend for elongation during systole. Haller, Lancisi, Steno and Bassuel say that it is shortened and this is the general view at the present time. Carpenter says: "During contraction every diameter of the ventricles is lessened." It is of little importance, however, as all agree that it is contracted and hardened to the utmost extent. This is sufficient for our purpose. The coronary arteries which supply the heart substance are the first branches of the aorta arising from the little *cul de sac* at its origin from the heart just behind the semilunar valves which, during the systole are thrown back against the aortal walls and partially or completely cover and close their orifices. Besides this these arteries turn back upon the heart, a course contrary to the current in the aorta and therefore the rush of blood through the aorta has no tendency to fill them, but rather to empty them by suction. The branches and capillaries of these arteries ramify in an oblique and intricate manner between the fibrillæ of the heart terminating in venous radicals which empty finally through the coronary veins without valves in the right auricle. Therefore, it is evident that in the systole the heart receives no blood, but on the contrary that which it had is pressed out either back into the aorta from compression of the coronary arteries or on through the veins into the right auricle. Thus we see this to be a positive and indisputable fact, that the heart, when supplying the rest of the system with blood by its contraction, and by this act deprives itself entirely of this necessary fluid. It depletes itself totally, becomes exsanguine, bloodless and as a consequence for the time being, paralyzed.* This blood contains both the

*That the force of the ventricular contraction is sufficient to exhaust all the blood contained in the substance of its walls is found not only by

food and oxygen necessary for nutrition and in the temporary absence of these two conditions of vital action, the other two present the organism and temperature, are of no avail, there results a cessation of action, a paralysis. Whether or not waste under proper conditions is the origin of vital force, we all will agree that without either nutritive substance or oxygen life does not continue, and this is the condition into which the heart brings itself by its contraction. But now what occurs as a consequence of this paralysis? The diastole now commences, it is purely passive, the auricles and ventricles dilate. This dilation may be aided by elastic fibres interwoven in the muscular substance of the ventricles. The aortic and pulmonary semilunar valves by the pressure of the blood in its tendency to regurgitate back from the great vessels into the ventricles of the heart close and prevent this. Now occurs the momnnt for the renutrition of the organ, it is relaxed, the orifices of the coronary arteries are open, their calibre free, and by the weight of the blood in the ascending aorta the muscular substance of the heart is now again charged full of blood. This is why the aorta arches above the heart, that gravity may rapidly accomplish this. The heart has now again all the conditions necessary for action. In the meanwhile, its cavities have been filled by means of the outer forces of the circulation, the press caused by capillary affinity and lung action. The auricles fill, a slight contraction commences in their walls, the blood fills the ventricles, the cardiac ganglia around the origin of the great vessels furnish the necessary nerve change to the muscles of the heart and the spasm again occurs. This is the whole matter. It seems to me to have all the force of a demonstration. There seems to me to remain no further mystery to fathom, unless it is the nature of the innate contractility of the muscular fibrillæ and this does not properly belong to this subject, which only claims to be an attempt to explain by mechanical principle, the rhythm of the heart.

The continued contraction of the organ when empty and removed from the body, after somatic and before molecular death, which has appeared so mysterious and inexplicable to physiologists and which utterly destroys the theory of stimulation by contact of blood with the lining membrane of the heart, is no

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the observation of this contraction, but also by its proved force which has been shown to be equal to sustaining a column of blood as large as the aorta 7½ ft. high.

very wonderful thing. Any muscle will contract under these circumstances. Mechanical irritation, elasticity, even atmospheric air is a temporary substitute for the proper stimulus and the heart contracts rhythmically merely because that is the manner of its muscular action of its mechanism already described. Its irritability is soon exhausted because no nutrition is supplied after exhaustion by contraction. The conditions of life are no longer present and molecular death soon occurs.

In conclusion, I desire to remark that this theory, though not in the text-books, is therefore original with me. It was suggested by my late friend and companion, Dr. John H. Watters, whose genius illustrates every subject it touches, and whose untimely death, science and our society so deeply deplore. It was merely suggested by him in his thesis on the Origin of Vital Force, published in 1851, as an illustration of that immortal theory. The elaboration and manner of presentation only, are mine. I regret that I have no copy of that paper, so that I might quote his words. His works are scattered and seem to be forgotten, but they contain great and vital truths and will rise again. He was contented to leave his record to posterity, not specially caring for his own fame or profit. He was mortal and is dead; the truth he established is immortal and can never die. The day is not far distant when if honor and good faith linger on the earth, his fame as an original thinker will be established and his great services to science fully acknowledged.

DISCUSSION.

DR. BERNAYS.—I would ask Dr. Anderson whether the theory he has advanced to-night as originating with Dr. Watters is not exactly in harmony with Brücke's theory?

DR. ANDERSON.—No, sir; I have given Brücke's theory, it is not the theory I mentioned.

DR. BERNAYS.—I think Dr. Anderson has misunderstood Brücke's theory. Brücke's theory is known as the theory of the self steerage of the heart. The theory is that as soon as the ventricles are perfectly contracted the blood which is in the walls of the ventricles and the branches of the coronary arteries is pressed out and enters the aorta, then there is a regurgitation, the valves close, and then there is a rush of blood into the coronary arteries. The only theory that will per-

fectly account for the rhythm of the heart seems to me to be that based upon reflex action from the medulla oblongata. As soon as there is too great a load of carbonic acid at the origin of the nerves in the medulla oblongata, and the fourth ventricle of the brain, the lack of oxygen in the blood is immediately telegraphed down to ganglia in the heart, and then there is a contraction, and so this is repeated. The act of breathing is on the same principle. As you know, the pneumogastric nerves originate in the fourth ventricle, the medulla oblongata, and as soon as there is a lack of oxygen in the medulla oblongata, then by means of the pneumogastric nerve or of the sympathetic which connects with the coronary sulcus of the heart, is produced a contraction of the heart. That will probably account for the rhythm of the heart in a way that can not be objected to.

DR. A. GREEN.—I would ask Dr. Bernays if the reason of the rhythm of the heart is the stimulation of the carbonic acid on the medulla oblongata of the brain, how can we account for the heart rhythm in the fœtus where we know there is an excess of oxygen from the very fact there is no necessity of respiration or respiratory movements; this very fact shows that there is an excess of oxygen, and consequently there is no stimulation by carbonic acid. The rhythm of the heart goes on just the same in that case, so that it cannot be that the rhythm of the heart depends wholly upon the irritation of the carbonic acid on the medulla oblongata.

DR. ANDERSON.—I think I fairly stated Brücke's theory as it had been stated by Dr. Bernays and the objections that Dr. Bernays makes to the theory that I advanced are not exactly tenable. My theory does not rest upon the theory that the semilunar valves cover the coronary arteries. Even if the mouths of the arteries were open no blood could enter, from the fact that the coronary arteries run in an opposite direction from the aorta; there is no tendency for the blood to go in even if the orifices are open; it would rather tend to draw the blood out.

DR. LUTZ.—I want to add one more fact to what Dr. Anderson has said; the rhythm of the heart is disturbed in embolism of the coronary arteries; the diagnosis in such cases is based almost exclusively upon this disturbance of the heart's rhythm. The only case of the kind that I know in the literature on this

subject in this country, and that was not published in this country, occurred in the practice of the late Dr. Hammer. I have a copy of this at my home. It was published by Dr. Hammer after his return to Europe in some Vienna journal and subsequently reprinted. He says the only symptom upon which he could rely for locating the pathological lesion was the disturbance in the rhythm of the hearts action. I haven't given this subject any study at all; but it occurred to me that I might mention this in addition to what Dr. Anderson has said on the subject.

DR. BERNAYS.—I remember the case the doctor refers to. Dr. Hammer sent me a copy of his paper, and I am very badly mistaken if there was any disturbance of the rhythm at all. There was a change in the frequency of the heart beats, but I am almost positive that there is no disturbance of the heart's rhythm. The heart beats were twenty-six in a minute at first, then they decreased to twenty-three and were perfectly rhythmic at that for a time and then decreased to fifteen, being perfectly rhythmic at that for several hours. Now in regard to Dr. Anderson's theory I think no one will deny for a minute that at the commencement of the systole of the heart the capillaries and arterioles, as well as the small veins contain blood, and this is expressed from the blood vessels during the systole; then during the diastole, the heart receives nutrition from the coronary arteries, but how does that explain the rhythm of the heart? Certainly the contraction of the heart is primary, and and the distribution of the blood in the heart is only a secondary act. You cannot say that the dilatations and contractions of the heart are caused by the blood entering into the coronary arteries, before it enters into the coronary arteries there must be a contraction of the heart, a muscular action of the heart as the first act and the nutrition is secondary. In a paper published some years ago on the development of the heart I showed that in the embryo of three months there was no coronary artery whatever, that the heart received its nutrition by absorption; after the third month the coronary arteries first make their appearance; the muscular substance of the ventricles becomes thicker and it becomes necessary for the nutrition to have coronary arteries. I state this fact merely to show that the contraction, which is the principal function of the

heart, was present in the embryo long before there was any nourishing apparatus whatever in the heart.

DR. HUGHES.—You, during your experiments for the preparation of your thesis, took out a good many hearts from live animals, and after severing the connection of the heart you found that there was still a rhythm: how long did the rhythm of the heart continue?

DR. BERNAYS.—A long time.

DR. HUGHES.—It is a physiological fact that the rhythm of the heart does continue after the severance of the connection of the heart with the brain so that the explanation that its rhythm is due to transmitted impulse downward would not hold; so that we would have to look to the ganglia within the heart for the explanation. The persistence of the cardiac rhythm, after the severance of all communication with the brain can be explained in no other way. Where else does the heart then get its nerve impulse, severed as it is from the remainder of the body except from within the heart itself? Then you have another clinical fact in the disturbance of the cardiac rhythm occasioned by gangliopathic conditions implicating both the sympathetic ganglia within the heart and the ganglia external to the heart, the ganglia of the sympathetic chain; you may have reflex cardiac gangliopathic irritation and as a consequence disturbed heart's action—a morbid impulse passing up from a diseased ovary, for example.

DR. STEVENS.—It seems to me that in accounting for the circulation in the muscular structure of the heart, the most efficient forces have not been mentioned. The heart throughout is a series of pumps, and its intrinsic action is otherwise under the control of another, or we may say an extrinsic pumping apparatus—the diaphragm. When the diaphragm descends, the quadrilateral opening, through which the vena cava passes, expands, and it is by atmospheric pressure that the blood is forced into the right auricle; it is also in part by the same force, that blood in the arch and the ascending portion of the aorta, on the expansion of the ventricle, tends to regurgitate, or to rush back into the ventricle. Taking these facts into consideration it is very easy to comprehend how the impulse by which the blood is driven into the coronary arteries, is given. The physical forces are pre-

cisely the same as those operating in the hydraulic ram. I cannot see how the fact that in the hog the coronary arteries arise above the surface covered by the semilunar valves militates against the theory that the coronary arteries are filled at the time of the diastole and that they are emptied at the time of systole of the ventricle. As to how these physical or physiological functions are connected or concerned with the heart rhythm is a question of interest. I regret that I did not hear the reading of Dr. Anderson's paper, but this discussion gives me the assurance of its excellence.

Dr. Prewitt.—I don't think, Mr. President, that we can look upon the action of the heart as dependent upon the anatomical construction in that way. So far as the point of origin of the coronary arteries is concerned, I think that would make little difference on the supply of blood; but why should the presence of a quantity of blood lead to the contraction of the muscular tissue of the heart especially? Then again, so far as the nerve influence of the medulla oblongata is concerned, the rhythm goes on for a long time in a frog's heart after it has been taken out of the body of the frog, where there is neither medulla oblongata or blood supply to influence it. It certainly seems to me that it can not depend upon the anatomical arrangement of the arteries in any way to keep up this rhythm; and it would hardly be dependent exclusively upon the medulla oblongata.

Dr. Hurt.—I think we can very readily account for the modus operandi of the nutrition of the heart, but as to the ultimate cause of its action we find, perhaps, as much difficulty as in explaining any of the physiological phenomena pertaining to animal life. While the action of the heart is mechanical, it is the result of a physiological cause, and while the thrusting out of the clenched fist is a mechanical act, it is also the result of physiological cause, but between that and the action of the heart there is this difference: one is volitional and the other is not a volitional act; it is what we may term an automatic act; and while we are disposed, perhaps with very good reason, to connect both these actions with the brain, there are some actions that will persist, and especially those pertaining to the heart, and seem to be almost independent of the brain. I have heard it stated in a lecture of some one of my preceptors in the course of my life, that the heart of a turtle, I think it was, after having been

extracted from the body and exposed in the open air, continued to contract in the dry atmosphere until it became dry and crackled like a piece of paper, and still continued to contract. There couldn't have been any brain influence there, nor any coronary influence either.

DR. BERNAYS.—I merely wanted to say that I don't want to be understood as having militated against the theory of Dr. Brücke. I think it is one of the prettiest mechanical theories in physiology; but as we have the action of the medulla oblongata as a factor we don't have to consider that theory at all. Now to the objection that has been urged that the heart will beat long after it has been severed from the body, there is a rhythm almost from the very beginning, the heart is one of the first organs formed and it is rhythmic from the very beginning. The heart in the chick is formed thirty-six hours after incubation. Those objections don't hold good because if you get a frog's heart and place it in the atmosphere it will beat for hours until it dries up; and I think the reason of it is that the ganglionic cells in the heart lack in oxygen and they keep contracting the heart.

DR. HUGHES.—The essential conditions for the normal rhythm of the heart exist in the endocardiac ganglion. No one doubts that the mechanical arrangement of the thorax is designed for the purpose of promoting this end; no one doubts that there is assistance given by the lungs; no one doubts that the position occupied by the heart is such as is best calculated to enable it to perform its function with facility; and that the normal condition of the cardiac ganglia depends upon the healthy condition of their pabulum—that for normal movement there must be proper oxidization I think there can be no reasonable doubt. Dr. Bernays explains it both ways; the heart continues to beat he says after it das been taken out, severed from its connection with the brain and cord, for want of oxygen; and continues to beat within the body, for the want of oxygen. Well I should prefer the other explanation, that the essential conditions of normal rhythmic action of the heart are a healthy condition of the cardiac ganglion, and this healthy condition is dependent, where it is long continued, upon the healthy condition of the blood, healthy in all of its constituents, in oxygen especially.

DR. JOHNSTON.—How about the jelly fish; there is no heart and nerves there?

DR. HUGHES.—It doesn't follow that because in the lowest organisms life goes on we are to reason from the mollusca up to man in the explanation of physiological function; and it is a matter of no concern to me as to how life goes on in the jelly-fish or whether the jelly fish has any life at all. Logically it makes no difference because it is not applicable to this question under consideration. The organism of man and the jelly-fish are so dssimilar, and the distance so great, that no conclusion at all satisfactory could be formed, even if we found precisely how life did go on in the jelly fish.

DR. PREWITT.—I just wish to call attention to this fact: If you take a frog and wash out the bloodvessels, and then fill the vessels with salt water, the frog will live, and its heart will go on beating, and you can even produce an inflammation in the web of the foot; now this is true of the frog, the heart rhythms go on and why should it not be true of the red-blooded animals. Certainly the conditions of the heart contraction must be very much the same, and if so it couldn't be true that the contraction of the heart depends simply on the circulation. It would be illogical to come to that conclusion it seems to me. While the blood is undoubtedly essential to the nutrition of the heart, it seems to me we have facts that are absolutely opposed to a theory of the kind.

DR. ANDERSON.—I didn't go so far as to maintain that the excitation is the prime factor involved. If it is a fact that the frog will live with salt water in its veins as Dr. Prewitt has mentioned it must be because the fluids keep up an excitation. I protest against the theory of Brüeke being considered in any degree like that I have advanced which was original with Dr. Watters.

SATURDAY, May 13th, 1882.

Affections of the Bladder in Puerperal Women. By A. A. Henske, M. D. Physician in Charge of the St. Louis Lying-in Hospital.

MR. CHAIRMAN AND GENTLEMEN:—I propose to offer you this evening some remarks on a class of affections of the female bladder, connected directly with childbirth, of which very little is mentioned in our text-books on midwifery. It is true, we frequently enough meet with these affections outside of the lying-in-room, nevertheless, it may be of some interest to bring to view the peculiar features thereof incident to childbirth. I do not allude to surgical lesions of the bladder, such as fistulæ and dislocations, etc., being frequent sequelæ of a difficult or unskillfully managed labor, but to the inflammatory and functional disorders of the same, namely: Cystitis, Cystospasm, Ischuria and Enuresis.

CYSTITIS.

Cystitis may be either a primary catarrh of the mucous membrane of the bladder or an extension to the same of an inflammation of the surrounding parts. In the latter case the inflammation of the serous membrane of the bladder or of the cellular tissue of the pelvis spreads inwards to the mucous membrane or, what is more common, metritis and chiefly endocolpitis extend to the adjacent walls of the bladder. The layers of the connective tissue are in these affections swollen, becoming the seat of œdematous infiltration, the muscular coat of the bladder is likewise infiltrated with serum or pus, while the mucous membrane exhibits catarrhal swelling and tumefaction and is often of a gray slatish color. These inflammatory processes are, therefore, but sequelæ to a more general puerperal inflammation. Primary and simple cystitis is most commonly caused by bruising and tearing which the bladder and the urethra suffer during labor. Even in ordinary cases of natural labor very often more or less tearing of the mucous membrane around and in the urethra happens, the inflammation of which extends to the inside of the urethra and the lower part of the bladder. During labor the extensive venous network in the neck of the bladder and the vessels of the urethra are considerably distended and in some cases ruptured, resulting in small extravasations of blood

into and beneath the mucous membrane. The taking of cold may be a cause of cystitis or at least increase the disposition to it when there are abrasions and lacerations in the mucous membrane. When ulcers exist in the vicinity of the urethra and at the orifice, or within the cavity of the vagina, congestion, swelling and tumefaction of the urethra and of the bladder often occur secondarily.

But as the most common cause of puerperal cystitis I must consider the introduction of the catheter. This instrument which is so often used at childbirth can be injurious by its mechanical irritation. The urethra, so sensitive to foreign bodies when in a healthy condition, is more so, when swollen and hyperæmic and thus easily injured. The catheter can also be injurious by introducing infectious matter into the urethra and bladder. The infectious germs introduced thereby may be contained in the air that enters the catheter itself, or they may be adherent to it, being unclean or introducing secretions of the lochia or wounds. The more unhealthy the latter, the worse the secondary inflammation of the bladder and *vice versa*.

The contused and hyperæmic condition of the mucous membrane of the urethra and bladder, the partial loss of epithelial cells corroborate the morbid action of the introduced spores.

When there is retention of the urine the decomposed urine may cause inflammation. But this is rarely, if ever, the case in a healthy bladder; only when the mucous membrane has been injured, inflammation will set in and this is generally a very severe one. The extreme distension of the bladder, if not relieved in time, will cause cystitis even in the healthy organ by cutting off the blood supply to the sub-mucous tissue and mucous membrane by uniform pressure upon the same. An exfoliation, and partial death of the membrane takes place and an intense inflammation will follow the evacuation of the bladder by the catheter. One severe case of cystitis I saw immediately following the application of a large fly-blister upon the epigastrium; but it may also be ascribed to an extension of the inflammatory processes in the neigboring parts of the pelvis.

The symptoms of a mild attack of cystitis are in most cases not very prominent—a little difficulty in urination, a burning sensation—and they pass away so soon that they are overlooked among the other phenomena of the lying-in-room and the affection remains unobserved. Therefore, I suppose that it is of

more frequent occurrence than is generally known. There are only slight febrile disturbances and very little supra-pubic pain.

In the severer and most pronounced cases, painful urination, a frequent desire to urinate and sometimes retention are the prominent symptoms. Pain is always present, even after emptying the bladder, and often radiates to the region of the kidneys. The frequent desire to urinate is due to the great irritability of the bladder, especially of the neck which is often eroded. Retention of the urine is due chiefly to clots of mucus and pus closing the urethra, rarely to spasms of the sphincter vesicæ or to paralysis of the detrusor; to the latter only later on in the disease. The urine which in the puerperal woman is always of greater quantity than normally and generally containing grape-sugar, is now rich in pus and mucus, not infrequently blood, and always, even in the mildest cases, contains albumen. There is tenderness on supra-pubic pressure, often over the whole lower half of the abdomen, causing the patient to raise her legs to relax the abdominal parietes. The injuries to the perineum and vagina become gangrenous from the irritation of the urine which cannot be prevented even by the greatest cleanliness. Meanwhile the general condition of the patient is more or less disturbed, she is always more or less feverish; but only in severer cases this depends upon the cystitis itself. As a rule, the general condition of the patient depends upon other puerperal affections to which the cystitis is a complication. Still I have seen two cases of primary cystitis in puerperal women, one in the hospital and one in private practice, which I am certain were not complicated with any inflammation of other parts of the pelvis and in which the patient became very low and delirious from the fever.

The prognosis is generally favorable; the mild cases get well by proper attention to the diet etc., within a week without treatment; the severer cases also recover if treated properly. Sometimes puerperal cystitis is the beginning of a chronic cystitis; and indeed, the majority of the chronic catarrhs of the bladder in women may be traced back to their confinement. In these cases we usually find, besides, other sequelæ of the latter in the pelvis; especially endo-metritis, ulceration of the neck of the bladder, peri and paracystitis. Puerperal cystitis, according to Kaltenbach, may sometimes become the starting point of a

general catarrhal inflammation of the urinary passages up to the pelvis of the kidneys.

The treatment does not differ essentially from that of cystitis under other conditions. Careful attention to the lesions of the surrounding parts of the urethra, and carefully emptying the bladder is the best prophylactic. Catheterization must be resorted to only when absolutely necessary, and then with a metallic, previously thoroughly disinfected instrument, and never under cover, but by exposing the meatus urinarius, and after the surrounding parts have been well cleansed of any discharges with a piece of cloth dipped in carbolic acid water; frequently however, warm fomentations answer all purposes in relation of the urine. I think we cannot be too careful in using the catheter as its reckless use, as mentioned before, is very often the exciting cause of cystitis. In mild cases I do not resort to any other treatment than keeping the parts clean, and perhaps, applying warm fomentations to the epigastrium. In severer cases and if the cystitis is well developed and during the acute stage, I apply cataplasms, warm turpentine fomentations to the epigastrium, warm irrigations to the vagina, opiates per orem and per rectum, and saline purgatives. I put the patient on strict diet of milk and oatmeal gruel etc., and let her use freely diluent drinks, as barley water, linseed tea, solutions of nitrate and citrate of potash etc. The infusion of buchu containing salines in solution is recommended as a valuable remedy.

The catheter I would use only when there is retention, i. e., when the bladder is not emptied within twelve hours. But should the retained urine become injurious, I use it oftener. Under this treatment the severe pain will soon cease and recovery follow. Should the catarrh, however, become chronic, the local treatment, the washing out of the bladder is the most important. In the beginning, lukewarm water, at a temperature of 90° F., slightly carbolized, should be used; it lessens the irritability. Later on, when a great deal of pus is discharged, astringent warm solutions, among which I recommend tarwater as the best, must be resorted to. Five per cent. solution of plumbi acetas and one quarter per cent. solution of argenti nitras, I suppose, are commonly used. The bladder should be washed out twice a day at least and an irrigator should be used, the rubber tube of which is fastened to a glass T tube. The irrigation

must be continued until the recurrent water is free from mucus.

NEUROSES

or functional disorders of the female bladder are:

a. Cystospasm—Dysuria and Tenesmus Vesicæ,

b. Ischuria or Retentio urinæ,

c. Enuresis or Incontinentia urinæ.

By the term neurosis proper is understood a derangement of functions in which there is no recognizable local lesion and which is independent of any nutritive disturbance of the affected part. The here mentioned affections in puerperal women are very seldom independent of any nutritive or inflammatory disturbances of the urinary passages, but, as a rule, are symptoms only.

a. Cystospasm.

Thus cystospasm or irritability of the bladder—the painful irritation of the nerves of the same with frequent desire to urinate, and tenesmus of the bladder—is nearly always dependent on inflammation and fissures of the neck of the bladder, rarely upon inflammation of the body; but very seldom, if ever, is it an idiopathic affection—i. e., purely nervous. While in the first class of cases the blood and pus loaded urine makes the diagnosis, the urine in the last class of cases—the purely nervous—is normal. In both cases, the inflammatory as well as the purely nervous spasms, the urethra and bladder are very sensitive to the catheter, and there are also neuralgia and irradiating pains, and not only during the act of urination but also before and after it. Sometimes this act is painful and slow in spite of the continued desire to urinate, the sphincter muscles being excited to spasmodic action at the same time. The severest pains are always experienced towards the end of micturition, and then frequently in connection with tenesmus of colon and rectum. When an attempt is made to pass the catheter, resistance is offered by the contraction of the sphincter and the endeavor to advance the instrument further causes acute pain. It is most probable, that the contraction is the reflex action induced by the irritation of the sensitive portion of the mucous membrane of the urethra with the catheter; or it may be that the sphincter itself has become sensitive and irritable from extravasations of blood which have taken place during labor. The spasms of the

muscles of the neck of the bladder and of the sphincter are tonic while those of the detrusor are clonic. The affection resembles very much the symptoms of stone in the bladder; it is possible that a stone in the bladder may be met with in the puerperal woman. The diagnosis of the causes of the cystospasms must be made carefully on account of the treatment. By way of exclusion and by careful exploration it is easily made. As a symptom we frequently meet with this disorder in the lying-in room, as a purely neurotic affection very rarely, if ever; at least I have never seen a case.

The inflammatory form is to be treated with anodynes and antispasmodics in connection with the treatment of the causatory inflammation. The dilatation of the urethra and sphincter vesicæ I have found to be the best remedy. It acts here on the same principle as in spasms of the sphincter ani.

b. Ischuria.

The most frequent of the so-called neurotic affections of the bladder we meet with in the lying-in-room is the retention of the urine or ischuria. It may occur immediately after delivery or not until after several days. In the former cases it may be due to paralysis of the bladder, contusion of its neck or distortion of the urethra during labor. A light degree of ischuria is very frequent after confinement on account of the larger capacity of the bladder and the laxity of the abdominal muscles. In very many cases I have noticed that the patients could not empty the bladder in a recumbent position, although they were able to do so in a sitting one. Here paresis of the walls of the bladder may be produced by the long distension of the same.

The severer forms of ischuria are as a rule caused mechanically. In the first few days, the closure of the urethra by œdema and clots of pus and mucus, and above all by the distortion of the same is the most frequent cause. The latter is due to the pressing down of the uterus after birth, while during pregnancy it had drawn the urethra up and stretched it.

If the retention of the urine does not occur until several days after confinement, it is always caused by consecutive inflammations. Also retroflexion of the uterus must be looked for as a cause, especially, when the ischuria is uncomplicated and in women who have suffered with it already before. Paralysis and paresis of the detrusor are rare. Some cases have been

recorded which have occurred in the last stage of severe puerperal septicæmia, undoubtedly owing to disorders of the sensorium, if not an infiltration of the muscular coat of the bladder accompanying septic peritonitis has been at the bottom of it. Similar infiltration is probably also the cause of the milder forms of paresis of the bladder; for the latter is frequently observed in inflammation of other parts of the pelvis, especially in inflammation of the peritoneum covering the bladder. In the ulcerative cystitis it may be also observed as the forerunner of secondary perforation of the walls of the bladder.

The capacity of the bladder and its distension may be enormous in confined women as the abdominal muscles are very lax. At a certain stage of it which differs with the degree of irritability of the muscles of the bladder and with the intravesical pressure, the resistance of the sphincter is overcome by the latter, and the urine dribbles partially without emptying the bladder. Such an extreme distension, continuing for some time in childbed, is not unfrequently the cause of secondary post-partum hemmorrhage. This is effected by the full bladder dragging the uterus from the true pelvis upwards and somewhat to the side, whereby its circulation is impeded, the contraction delayed, and the cervix compressed in the antero-posterior diameter of the superior strait of the pelvis. The discharge of the blood is arrested in this manner, and accumulating within the uterus, produces dilatation. If the bladder is evacuated, the uterus contracts more forcibly and thus forces out the coagula. Under such circumstances we may have external and internal hemmorrhage coexisting. A case of this kind I observed a few weeks ago. Called to see a patient having been delivered by a midwife five days before, I was told before entering the room that she had been complaining for several days of severe pain in the abdomen which was considerably enlarged and that the midwife thought the patient had been careless and taken cold, suffering now of puerperal inflammation. Examining the patient I found the pulse to be 90 per minute, the temperature 99° F. the whole abdomen distended and tender. There was tympanitic resonance from a line about one-half inch above the umbilicus upwards, flatness on percussion downwards; the lower part of the abdomen was only slightly more prominent than the upper. By vaginal examination I found the uterus high up, the distended bladder projecting into the vagina. To my question

whether the patient had voided her urine since confinement, I was answered that she was passing rather too much of it, at least too often and without her being able to retain it long enough to have the bed-pan put under her; indeed it was dribbling all the time. By pressing upon the abdomen I noticed that some urine was voided. I, at once, under protest of all present, including the midwife, introduced the catheter and drew off an immense quantity of urine of a strong ammoniacal odor. The hardness of the lower abdomen now disappeared, the somewhat enlarged uterus could be felt again through the abdominal walls at its normal position. A few hours later I was recalled and found that the patient had been flooding. The uterus was slightly enlarged, but contracted well after a few doses of ergot had been administered.

The treatment of retention of the urine, prophylactic as well as curative, consists in timely and according to circumstances repeated catheterization, and in giving attention to the causes and the accompanying morbid processes. The greater the paresis, the oftener the catheter must be used. Under circumstances the catheter must be left in the bladder for some time as the tone of the bladder is strengthened by remaining empty for some time. In many cases I have noticed that the patient cannot urinate in a recumbent position, but can do so when in a sitting one. The question arises whether it would be proper to advise her, soon after delivery, to assume the sitting position and make attempts to urinate? Prolapsus of the uterus, etc., is to be feared, and therefore some authors forbid such attempts. In the hospital I make it the rule, if the patient does not void her urine within twelve hours after confinement, and if the bladder is distended, to use the catheter. On the fourth day I let her try to void it in a sitting position, but forbid straining efforts.

Of the special medicinal remedies for ischuria I simply mention ergot, nux vomica, cantharis, the application of cold or warm water, and electricity.

c. Enuresis.

Enuresis or Incontinentia urinæ, independent of any other affection is very rare in confinement. The involuntary flow of urine in the asthenic condition of the puerperal fever patient is not meant here, neither the dribbling of the urine through a vesical fistula. Enuresis is due to paralysis or paresis of the

sphincter vesicæ. Contusion of the urethra and of the neck of the bladder during labor, distortion of the same by deviation of the uterus and of the vagina are the causes. Either the urine dribbles continuously or it is voided only by strong abdominal pressure, as in coughing and sneezing. Sometimes there is a desire to urinate at short intervals, caused by the small capacity of the bladder produced by mechanical obstacles to the same—pressure of the neighboring parts, as the uterus, etc., and generally accompanied by some irritability of the bladder. But this must not be mistaken for paralytic incontinence as is often the case. It is also important not to confound with the paralysis of the spincter vesicæ the incontinentia paradoxa, in which the natural resistance of the sphincter is overcome by the great distension of the bladder, in consequence of which the urine also dribbles away, as we have seen above.

The remedy for enuresis is also the catheter, besides giving attention to the causes of the trouble.

DISCUSSION.

DR. GEHRUNG.—I should greatly regret to see a paper with such valuable contents as that which Dr. Henske has read here to-night, pass entirely without discussion. The Doctor has mentioned some very important points which should certainly not be overlooked; and the attention should be called very particularly to this point of which the Doctor has made mention: the introduction of the catheter as being one of the promiment causes of puerperal cystitis. I second that opinion fully; and as far as I have succeeded in observing in a number of these cases, the difficulty arising from the introduction of the catheter arises from the—I might almost say the faulty construction of our metalic catheters, with sharp, large eyelets. I think a catheter without these eyelets or with small perforations would be far better, and would cause far less trouble of this character. If my observation in these cases is correct, when the metalic catheter with these large eyelets is introduced and the bladder emptied, it gradually contracts around the catheter; this irritates the walls of the bladder, and from this a spasmodic action is transmitted to the urethra, and in the process of withdrawing the catheter the walls of the urethra or neck of the bladder will contract around the catheter and fall into the eyelets and the

catheter is arrested. I suppose ttat Dr. Henske, like many others, has observed that condition too. In such cases cystitis almost invariably follows. If any traction is made on the catheter you may have bleeding following immediately upon the withdrawal of the catheter, as the mucous membrane is more or less lacerated. The best way of removing the catheter under such circumstances is to let it stay until the spasmodic action is allayed and then it will fall out of itself. In those cases in which the catheter is thus grasped the bladder or urethra is injured and cystitis will follow almost invariably. Consequently it would be quite advisable to warn against the use of such catheters as we usually find in use, and to substitute the use of the catheter with small holes at the point of the instrument; but better than this it seems to me, would be to use the elastic catheter which will pass in easily, and which will almost always come out without causing any difficulty whatever. Since I have been using this catheter I have never seen a urethral spasm, and never seen cystitis following its introduction. I believe that Dr. Henske mentioned as one of the causes of cystitis, the retention of urine due to retroflexion of the uterus. I second that likewise; but I would add to it retroversion, anteversion and anteflexion. As far as the treatment is concerned, I think that mentioned by the Doctor is correct, though in cystitis in the non-pregnant state, where the bladder is sacculated and retains the urine until it is decomposed, where there is such great diffculty in drawing it with the catheter, and where even injections into the bladder add to the inflammation and irritation, in such cases I would use the treatment that I proposed some years ago, of tamponing the vagina in such a way as to elevate the bladder to its full stretch, with the uterus at the same time, and to compress the bladder between the tampon and anterior abdominal walls as much as possible, taking care not to cause any obstruction of the bowels; by this means the putrifying urine will pass away freely and easily and the patient will almost immediately feel relieved from the symptoms of irritation of the bladder. I reported a number of cases treated by this method some years ago, and can add a number more at this date, in which this treatment has been perfectly successful, where the usual treatment of cystitis seems to be almost useless. Certainly in the purperal state I cannot advise this method of treatment as there is too much tendency to septicæmia, on account of the

irritation of the vagina and the liability of retention of the uterine discharges above the tampon.

DR. HURT.—I cannot think that the simple fact of the possibility of injury to the urethra by the passage of the catheter is sufficient reason why we should abandon the use of the catheter; it only suggests delicate manipulation, or the propriety of abandoning one catheter for another. The fact that there is a necessity for the use of the catheter, cannot be obviated by the fact that there is danger in producing cystitis in the use of it. We are between Scylla and Charybdis in this case: if we use the catheter we may produce irritation; if we do not use the catheter we risk the danger of sloughing, and of a fistula in urethram. Fistula may be due to some injury of the urethra during parturition; or to the fact on the other hand that the bladder has become distended during pregnancy and slightly paralyzed, and for these reasons it becomes necessary for the accoucheur to be very attentive to the discharge of urine, to see that it is discharged regularly, and to enquire carefully if it had been discharged inside of twelve hours after delivery, and if there has been no discharge I usually introduce the catheter.

Now the suggestion of the possibility of doing some injury where there is already injury, by the use of the metalic catheter, is very forcible and suggests the precaution of using some softer substance, but we cannot discard the use of the catheter.

DR. NEWLAND.—There was a point brought out in the paper that I desire to refer to, and it is one which I think cannot be impressed too much on the young practitioner. Reference was made to the necessity of emptying the bladder at an early period. I have no doubt that a great many young men are modest and dislike to make an examination, but trust entirely to the nurse in reference to the emptying of the bladder. They ask the nurse if the patient has passed water regularly, and are told that she has, whereas the water has been dribbling away. I was a young man myself once, it's a long time ago though, and was once caught just in that fix. The nurse told me that the water was passing regularly every twenty four hours. The patient was complaining of pain, and I began at last to suspect that she was not passing her water and on introducing the catheter, I drew off an enormous quantity of water to the great relief of the patient; cystitis had already begun and the patient didn't fully

recover from the cystitis for more than a year. That case made a deep impression on my mind; and I think it is well that every young practitioner should remember the difficulty that he may meet with just at this point. I fully concur with Dr. Gehrung in regard to the use of the soft catheter. I have recently had a case that reminded me very much of the necessity of using a soft catheter. They are much preferable to the ones that are ordinarily in use, such as we use on the urethra of the male. In females the soft catheter is easily introduced and its length—it being nearly double that of the ordinary catheter—renders it easily managed; you can easily direct it along the course of the urethra. I have met with some of the difficulties that Dr. Gehrung speaks of in the withdrawal of the catheter with the wide eyelet.

Dr. Johnston.—There was one point the gentleman spoke of in his paper that I wish to refer to; it is that in which he refers to the use of the blister. Some thirty-five or forty years ago we used to apply particularly large blisters; and then the patient couldn't pass water and we had to use the catheter. Now why is that? Is it the result of a poisonous substance in the Spanish fly that is absorbed into the blood and had a peculiar catalytic influence over the spincter, or is it a mere neurosis? I am inclined to think that it is a poisonous substance that is absorbed through the dermoid tissue and produces an irritation of the neck of the bladder. But Sir, to the position taken by the first gentleman who followed the paper, that a well formed catheter, properly cleansed can possibly be the cause of the cystitis, when it is properly introduced, I must certainly demur; and I must differ with the gentleman on my right that a gum elastic catheter when introduced into the bladder through the mucous membrane is less irritating than a properly constructed silver catheter. I have introduced the catheter frequently and have never seen any inflammation caused by it. The best catheter if it wouldn't break, is the glass catheter; the next best is a highly polished piece of steel; and the next best is the one commonly in use—a highly polished piece of silver. But unfortunately, many of us never wash out our catheters. If it is correct as is stated in the paper that there is a low order of organisms which cause this trouble in the genital organs, then of course they might be introduced by the catheter. The gentleman spoke of anteflex-

ion as a cause of this trouble. The gentlemen who have read Duncan's articles will find a little departure from what we conceive of retroflexion and anteversion. When will we be done with these conflicting theories. The vagina is just what the great Creator intended it and the sooner we let it alone the better. As regards the sacculation of the bladder, I will say that when the bladder is full it raises up, and I don't see how any sacculation can occur.

DR. GEHRUNG.—Dr. Johnston is evidently reasoning from negative evidences, and I feel it my duty to object to negative evidence in scientific discussions, especially when positive evidence is in existence. The things which I have mentioned have been experienced. The Doctor stated that pessaries are unnecessary in displacements of the womb. Many with very large experience say they do good and that they are necessary. Then he states, if I understand correctly, that the Creator knew well how to place the organs, so we should not meddle with them. If the Creator knew his business so well why did he not make things so perfect that there would be no need for doctors? If we accept the theory that the Creator made everything perfect we ought to consider the practice of medicine a sacrilege.

DR. HENSKE.—I only have to make a few remarks. Dr. Johnston misrepresents me in regard to the use of the catheter. When I spoke of the danger in the use of the catheter, I referred to the reckless use of it. He will remember that I recommended the use of the catheter in all the affections I spoke of in my paper. I use the metalic catheter in preference to the soft catheter, as it is more easily introduced than the latter; besides, you are able to keep the metalic catheter always clean, but you cannot thus keep the soft catheter always clean. If you use the soft catheter in puerperal women, safety requires you to have a new instrument every time you apply it.

IN CORRECTION.

DR. PORTER.—Mr. President, permit me to correct two statements I am reported to have made in the discussion of March 4th. On page 503, of the JOURNAL the record is: I have treated cases of catarrh successfully and done (?) so by insufflation with salt and water. I did not say so.

On page 506, I am supposed to have said that electrodes have been broken in the nasal cavity. I did not say so. I have used both the galvanic cautery and the Jarvis snare in hypertrophy of the mucous membrane of the nose and prefer the snare.

SATURDAY, May 20th., 1882.

Report of the Annual Meeting of the State Medical Association. By Request.

DR. LUTZ.—Mr. President, unlike former years, when I was appointed to make a report beforehand, I did not take any notes, and therefore I cannot make so complete a report, but any omissions that may occur may be supplied by some other gentleman who attended the meeting and participated. I will say that the meeting, so far as its numbers is concerned, was the largest that I have attended. About one hundred and sixty-seven gentlemen were enrolled, and that is the largest number that has attended a meeting within the memory of most of the gentlemen. The association met at Brittingham Hall, and was duly received by the mayor of the city of Hannibal, and some of the gentlemen of the profession. The first meeting was held on the evening of last Tuesday; the second meeting on the following morning, the third in the afternoon, and on the evening of Wednesday, the profession of Hannibal tendered a banquet to the attending members. Three meetings were held, and quite a number of papers were read. I can enumerate most of them. The gentlemen seemed to have taken great pains in the preparation of their papers. From this city Dr. Schenck, the very successful superintendent of the Female Hospital, read a very interesting paper on the "Phlegmasia Dolens"; he also made some remarks, and exhibited some instruments, showing a contrivance by which vaginal injections are administered at the Female Hospital. Dr. Glasgow, of this city, read a paper; Dr. Hurt read a paper and there were some papers I didn't hear. Dr. Lutz read a paper, but was modest as usual and failed to mention it. I will say that the meeting, so far as the discussions were concerned was a very successful one. Quite a number of gentlemen participated in the debates. One of the best papers that I heard read was that of Dr. Dewey, a gentleman from the vicinity of Hannibal, on "The Abuse of Quinine and its Indiscriminate Use." The matter was presented in a very original manner and Dr. Dewey is evidently possessed of great satire, which he made use of to great advantage. He declaimed against the indiscriminate use of quinia in pneumonia and typhoid fever, and the administration of large doses of quinia in parturi-

ent women. Then there was a paper on hydrophobia, and a case reported. Also a case of congenital multilocular cyst of the thyroid, reported by Dr. McAlester, of Columbia, Mo. Dr. Brooks, of Carthage, read a paper on vaccination, which elicited warm discussion. The physicians were quartered in the large hotel—the Park Hotel—and were therefore in close contact with each other, and spent much of their time among themselves. The association elected Dr. Gore, of Paris, a gentleman who has been connected with the association a number of years, and who has been a practicing physician for upwards of thirty-five or forty years, and whom I believe stands high in his section of the State, and who seems to be a man of considerable erudition, as president. The usual number of vice presidents were elected. Dr. Todd, of this city, and Dr. John Duncan, of Columbia, were elected Recording Secretaries. Our worthy President was again chosen as Corresponding Secretary; and Dr. Thompson, of Jefferson City, was again chosen Treasurer. The association resolved to meet at Jefferson City next year. Our worthy member, Dr. Hurt, nominated his native town, but if I mistake not, stood solitary and alone. The members from St. Louis didn't vote for Dr. Hurt's choice, I believe from the motive which actuated me, and was the desire to get away from the city, and Jefferson City was chosen as it was an accessible place, and one at which we have not met for quite a number of years. The State association is in a more flourishing condition than it has ever been before, and I don't know but that something is due to the fact that the President, Dr. King, whose address was on "Quacks and Quackery," and although quite lengthy, almost too lengthy, yet gave some very interesting information; I believe that much of the success of the association was due to the fact that Dr. King took great pains to correspond with gentlemen from all the counties in the State, enlisting their interest in the work which he was about to perform, and in the association. Dr. King's address, which was delivered Thursday afternoon, was ordered printed, and two thousand copies were ordered by the association, with the intention of assisting legislation in regard to the practice of medicine, and exposing the amount of quackery which is practiced in this State. It was thought that possibly if the matter was brought home to the legislators and the people at large, they would see the necessity of taking some steps whereby quackery, that is imposed on the people at

large, could be prevented. A committee was appointed on legislation, and I believe the gentlemen who composed that committee on previous years were again put on that committee, and I am sure will exert their every effort towards obtaining some suitable enactment by the assembly.

DR. HURT.—I went to Hannibal, hoping that I might enjoy the relaxation, but I must say that I found myself involved in more work than I expected. I was a member of a standing committee, and in addition to that, it was discovered that a very important committee lacked all the members except the chairman, the others not being in attendance and the president did me the honor to add my name to that committee and it gave us a good deal of work to do. I was not at leisure to take interest in the discussions, not consecutively at least, and therefore can give no details of the matters that came before the body. The paper of Dr. Brooks, on vaccination, interested me about as much as any that I heard read during the session. He introduced a large number of statistics to show that bovine vaccine has not kept its high standard for reliability that it was supposed to have a few years ago. His arguments and statistics also went to show that humanized vaccine was worthy of more confidence than it enjoys just now, and the facts and conclusions arrived at by the doctor met my approval very nearly. The fact also was presented and demonstrated by his statistics that bovine matter is, in some cases very violent that it resulted in a large amount of inflammatory action, and sometimes suppurative action; and that has been my experience also, so much so that I have discouraged ladies who have tender infants, in the use of bovine vaccine. I had a case this winter that alarmed me for a while from the use of bovine vaccine. I don't know that I have anything more to say, except that perhaps the number of names enrolled, including the two members from Marion County who were first objected to but subsequently admitted, would show an attendance of 159 instead of 157.

DR. PORTER was asked to make some remarks and said: The Missouri State Medical Association is, as you know, a large and important body, but it has one thing to learn, and that is, time is valuable. The association was to have met on Tuesday afternoon, but was not called to order till Tuesday evening. At three o'clock on the second day there had been but three papers

presented and discussed, and not a great deal of business transacted, so that very probably the business was crowded into the latter day. In one thing the society *has* learned the value of time, and like other societies I understand it has decided not to accept banquets and balls in the future.

DT. LUTZ.—Excuse me, Doctor, that is a mistake; the motion was voted down by a large majority.

DR. PORTER.—I am very sorry for that, because by that means the best session of the whole meeting is lost. I am sorry you corrected me. I received from the Missouri State Society a letter as delegate to the Illinois State Society, and went over on the afternoon of Wednesday. When I left Hannibal we had completed the reading of three papers, and the Illinois society which met on the same day had had twenty papers. In one society the work is done by clock-work; time is called, papers are announced beforehand and the members know something of the programme before they come. In the other society the titles of papers are not known until a few minutes before the paper is read, and if the acoustic properties of the hall are not good, some members may not know the title of the paper until it is published. I think our State association will do better work hereafter. There is a great deal of enthusiasm shown—a great deal of desire to work, but it is not properly organized. The Illinois association is in accord with the Missouri association and responded very heartily to the telegram of congratulations sent probably at the instance of the president of the St. Louis Medical Society. I think we ought to pay more attention to our State association and work harder for it, and do more in the way of sending working delegates, and so let the power of St. Louis be felt in the association, not of cliques and combinations, but through workers for scientific progress.

Is the Continued Fatality of Pneumonia Chiefly Dependent on the Prevailing Passive and Expectant Treatment of that Disease? By E. Montgomery, M. D.

It will be admitted by all that the mortality of most of our common and prevalent diseases is much decreased for the past thirty years. The great attention paid to inductive science, the increased knowledge acquired by experience and investigation by chemistry, therapeutics, physiology, pathology, etiology, etc.,

has largely conduced to the amelioration, prevention and cure of disease.

A celebrated London physician, over twenty years ago, when asked what would cure acute rheumatism, replied, "Six weeks in bed, enveloped in warm flannel blankets.

At the present time we supplement the woolen blankets with digitalis, the alkaline carbonates, salicylate of soda, etc., and have our patient well in from seven to fourteen days.

The various forms of dysentery which formerly carried hundreds to their graves, or left them suffering invalids, can now in most instances, if timely treated, be entirely relieved in a few days. Erysipelas, both traumatic and idiopathic, which was formerly so fatal and so much dreaded, can now be controlled and subdued in a short period of time. The various forms of intermittent and remittent fever which formerly produced so much mortality, or left the patient with many organic lesions and a debilitated and ruined constitution, can now, in most cases, if promptly and judiciously treated, be completely eradicated from the system. Typhus and typhoid fever, scarlatina, cholera infantum and the perilous diarrhœas of children are now robbed of many of their terrors by the increased knowledge in the various branches of medical science.

Now it does seem strange and inconsistent that whilst all of our common and prevalent diseases have been remarkably ameliorated, pneumonia should still exhibit its usual and uniform fatality. If we examine the records of the National Board of Health Bulletin or the mortuary statistics of any of the cities of the world, we will be surprised to discover that the deaths from pneumonia are more numerous than from any other disease with the exception of phthisis and epidemic diseases; yet our expectant, passive and milk and water physicians will tell us that pneumonia is a self limited disease, and that almost every case will get well, if not injured by active medication!

From the report of our excellent and efficient clerk of the Board of Health, Dr. Luedeking, it will appear that the mortality from this disease is alarmingly large. In St. Lonis for the fiscal year ending April 2nd, 1880, the total number of deaths from all causes was 7,037, and of this number 559 were from pneumonia, and 189 from other acute diseases of the respiratory organs. For the year ending 31st December 1881, the total number of deaths from all causes was 8,410, of which 474 were

attributed to pneumonia. For the past fourteen years the total number of deaths in St. Louis, from all causes was 90,669, and of these 5,700 were cases of pneumonia!!

Notwithstanding this fearful exhibition of facts, many of our physicians and professors inform us that most cases of this disease will get well, if left to the resources of nature!!!

After a considerable amount of practice and experience in St. Louis for thirty-three years, I can testify that the prevailing remedial management of this disease has been almost universally of an expectant and passive character. If we make inquiries of our cuppers and leechers they will tell us that for the past twenty-five years they have had very little employment, and I will venture to say that venesection is scarcely ever resorted to. Again, on looking over the prescription books in drug stores, which I often do, we will discover very few prescriptions containing tartar emetic, veratrum viride, digitalis, aconite or calomel, remedies formerly so popular in the treatment of this disease. Professor Austin Flint and many lesser lights in the United States, have by their teaching and writings done much to abolish all positive or active treatment in cases of pneumonia, and Dr. Bennett of Edinburgh, Drs. Todd, Squire and others of London; Dr. Watters of Liverpool, and the late Professor Skoda and many others of Austria, Germany and France, have largely contributed to the passive and expectant treatment of this protean disease.

I am therefore forced to the conclusion that the great want of progress and improvement in the successful treatment of pneumonia in comparison with other grave affections, is in great part dependent on the neglect of employing a prompt, energetic, rational and judicious system of medication. To confine our therapeutic measures to the flaxseed jacket, an occasional small dose of syrup of ipecac, spirits of nitre and spirits of mendderiri, is in my humble opinion—"A Meditation on Death." To intimate that the teachings of Skoda, Todd, Bennett, Squire, Watters and others have tended to retard improvement in the remedial management of pneumonia, I will quote from the *National Board of Health Bulletin* of this country, giving statistics showing the mortality of this disease in many of the cities of the world.

In the city of London, for the week ending Feb'y 25th, 1882, there were 1,941 deaths from all causes; of these 128 cases

were attributed to pneumonia, and 545 cases to acute diseases of the respiratory organs. In the city of Paris, for the week ending Feb'y 23rd, 1882, there were 1,337 deaths from all causes, of which 128 were from pneumonia. In the city of Vienna Austria, for the week ending Feb. 18, 1882, there were 536 deaths from all causes, 73 of which were from pneumonia. In fifteen of the principal cities and towns in Ireland, for the week ending March 4th, 1882, there were 503 deaths from all causes, and 108 deaths from acute diseases of the respiratory organs. In the city of Paris, for the week ending March 8th, 1882 there were a total number of deaths from all causes of 1,363; of these 120 were cases of pneumonia.

In Vienna for the week ending March 8th. 1882, there were 555 deaths from all causes, and of these there were 97 from pneumonia and 122 from phthisis.

In London for the week ending March 25th, 1882, there were 1,827 deaths from all causes; 427 of these were from pneumonia.

In fifteen of the principal cities and towns in Ireland, for the week ending April 1st, 1882, there were a total number of deaths from all causes of 506, of which 79 were from phthisis, and 103 from acute diseases of the respiratory organs.

In London for the week ending April 1st, 1882, there were a total of 1,665 deaths from all causes, of these 247 were attributed to bronchitis and 102 to pneumonia. It seems very probable that many of the cases classified as bronchitis were really cases of pneumonia.

In the city of Moscow, Russia, for the six months ending 31st December, 1881, there were 10,834 deaths from all causes, 1,287 of these were attributed to phthisis, and 1,038 cases to pneumonia.

In the city of Paris for the week ending April 5th, 1882, there were a total number of deaths from all causes of 1,337, of which there were 146 cases attributed to pneumonia, and 88 cases to other acute affections of the respiratory organs.

These mortuary statistics clearly and certainly prove that pneumonia continues to be a very fatal disease. It is passing strange that whilst the increase of medical knowledge and great advancement of medical science have wonderfully lessened the mortality of almost all of our grave diseases, pneumonia still remains the opprobium of medicine and carries off thousands to a premature grave. Pneumonia is sudden in its accession and

rapid in its course, and in my humble opinion its great fatality is chiefly dependent on the passive and expectant course so generally adopted for its arrest or relief.

In the few observations I make in regard to this disease I will confine myself to that form designated acute lobar pneumonia as this is the type we generally meet with in practice among adults. According to our recent standard authors, acute lobor pneumonia is an "Inflammation of the lung tissues, commencing with a rigor or chill, followed by a continued fever until resolution and convalescence ensues." It is generally divided into three stages; in the first there are hyperæmia, congestion and engorgement, commonly called the stage of engorgement, or the congestive stage. The second is usually called the stage of red hepatization, where the lung is consolidated, its cavities are filled with coherent masses of cells, the lung tissue is slightly granular, dry and friable, will sink in water, and is easily torn. Sometimes there will be sanguineous extravasation, and on lacerating or cutting it there will be an exudation of thick, turbid, purulent fluid. A deposit of inflammatory lymph will usually be found on the surface of the pleural membrane contiguous to the inflamed portion of the lungs. In the third stage this turbid and purulent exudation is generally more abundant, the lung tissue is of an opaque, grayish, yellowish or greenish tinge and an increase of friability. The whole lung or only circumscribed portions of it may be involved in these morbid changes. It is singular that the right lung is more frequently the seat of disease than the left, and the lower oftener than the upper lobe.

If the disease is not controlled and the third stage is fully developed the case will likely terminate fatally, either from extensive purulent infiltration, violent extravasation, hæmorrhage or gangrene; the first is the most frequent cause of death. Abscess may occur but this complication is very rare.

It will be observed that pneumonia is an inflammatory disease; in the first stage, the pulse will be strong, hard and quick, the fever heat going up to 100° or 106°, and the respiration hurried and more or less painful according to the gravity of the inflammation and the extent of the lung or pleura involved. It therefore appears rational that if the patient is not too old, too enfeebled, or of a very irritable and weak constitution, we should in the beginning of the first stage extract blood either by

venesection, cupping or leeching, giving at the same time a purgative of jalap and the mild chloride. In the first stage of a sthenic attack of acute lobar pneumonia in a robust subject, a good free venesection will act like a charm. This operation I would not repeat, but if much pain in the chest or signs and symptoms of sanguineous engorgement I would employ dry or wet cups freely. After the venesection and cupping if the patient is robust I would administer tartar emetic frequently, in small doses, from the one-twelfth to the one sixth of a grain every two hours, always giving it in solution with gum arabic and a little sugar, the gum prevents any of its irritating effects.

The tartarized antimony seems to be a great bugbear to many of our modern physicians, they seem to have a great horror of its irritating and debilitating effects, forgetting that if the inflammatory process is permitted to progress, the patient will be much more prostrated, and that without much hope of healthy reaction. In the early stage of sthenic cases in robust subjects I have never witnessed fatal prostration from tartar emetic, but in such cases the patient will improve and the appetite will return. If from some idiosyncrasy of the patient the antimonial seems to do little good, I am much in favor of aconite or veratrum viride. The latter is also much dreaded by many physicians, but in robust patients with acute disease I consider it perfectly safe. Of course we should closely watch its effects, and as soon as the pulse is sufficiently reduced it should be dispensed with, to be resumed in case the pulse and fever heat should indicate its further employment. In this stage I could never see any advantage from the employment of the warm flaxseed meal poultices around the chest; if the patient is robust I have great faith in bladders of powdered ice applied over the sternum and upper portion of the spine.

In the second and third stages of the disease I would not recommend the use of the tartar emetic, aconite or veratrum viride, but in lieu thereof I would give carbonate of ammonia, quinine and cod liver oil. I have much confidence in the carbonate of ammonia as a resolvent, in preventing consolidation of the lung, liquifying the viscous turbid secretion or exudation, and in encouraging a healthy circulation of the blood. To obviate the evil effects of purulent infiltration. I am of opinion that quinine and ol. morhuæ are the remedies which promise the best results. After the use of the dry cups in the commence-

ment of the second stage free vesication with emplastrum lytta will be of essential service; repeating the blister as often as necessary. On the appearance of debility or prostration in the second or third stages in addition to the ammonia, quinine and ol. morhuæ, I believe a little brandy or whiskey punch, egg nog, cream, beef tea, etc., etc., will be essentially necessary.

In all cases and in all periods of the disease we should put the patient upon the best hygienic conditions, so as to afford every advantage in favor of recovery. The patient's room should be properly ventilated, have a moist atmosphere; unslaked lime in a large bucket or pot of boiling water will prove the very best means to insure the last condition. The chest should be kept elevated on an inclined plane, and should great wakefulness or mental irritability be present, fifteen grains of chloral hydrate, and one-eighth of a grain of morphine should be given at bedtime. The patient should be admonished to keep perfectly quiet, and to refrain from all conversation or any exertion of the respiratory organs.

DISCUSSION.

DR. PORTER.—As the Doctor, whose experience and practice in this city command our attention and confidence, has so well said, "pneumonia is a disease most fatal." Most fatal in large cities as he has shown, and in the sparsely settled countries, only we have less accurate statistics from the sparsely settled communities. This may seem like a contradiction, but many of the same elements prevail. In the large cities the disease is most fatal among the poor; in the sparsely settled country it is most fatal among those who are, by reason of their settlement far from the physician, and are without means of counteracting the ravages of the disease. In both cases medical aid is not early summoned and valuable time is lost; for early in the progress of the disease is the most effective time to treat it. Pneumonia treated early, if the hygienic conditions are at all favorable, is almost always susceptible of relief; but pneumonia, as often seen by the physician, further on when the disease has become well advanced, and well determined, is a most formidable disease. The reason that so many die in the cities is that the health officer or the physician does not reach the case until it has become an emergency. He finds the case far advanced and beyond his remedies. The pathology of pneumonia ought to guide us in its treatment. It

is probably of all the diseases of the lungs, the most nearly a specific inflammation. The Doctor will remember that the medical literature not long ago gave some evidence that pneumonia was closely allied to erysipelas. Whether that be true or not, certainly there are many points alike in the two diseases; and there is much in the treatment of the one that is suggested in the other. There is a local congestion of the vessels of the alveolar structure of the lungs; at first they are engorged and distended, and the lung involved becomes dense from the exudation from the distended capillaries and small blood-vessels. In that stage the treatment that is most effective and is demanded is, first, rest. Beyond a doubt there is no medicine like rest; sleep should be induced if possible. Second, (and here I differ from the Doctor, and I do not, I can not put my experience beside his, and yet I must judge by my experience) I have found great relief from warm poultices in the early stage. It alleviates pain, it produces an equal temperature of the chest, and I think it facilitates resolution in the latter stages. There is a great deal in the way a poultice is used; and I want to speak of this at length. It doesn't do to put a poultice on as one might on a limb and ask that it be renewed when it gets cold. The poultice in these cases to be effective must be applied to the whole chest, or the affected side of the chest at least, and then something must be applied over it to retain the heat, as oiled silk or oiled muslin. I may not speak of my successes, as most of the cases I have had have been cases that have been well surrounded, well conditioned, and in these I have found that the warm poultices have been of use. I have the poultice put on early in the progress of the disease and kept on. I have a case in which the man has been poulticed ten days. But referring again to the pathology:—When this congestion threatens to become an inflammation, with an exudation from the capillaries and veins of inflammatory matter, in a robust subject during the early stage, probably no treatment is so indicated as bleeding. I heartily agree with the Doctor in that regard. We do not practice bleeding much now but in proper cases I do not hesitate to bleed. I have done so and have not regretted it. Further along when the exudation has taken place a good deal of tact and care is necessary on the part of the physician in inducing rest and the use of internal medication. I heartily agree with much of the Doctor's treatment as indicated in his paper. But above all else the patient must remain a suffi-

cient time in bed, or in his room to make a complete recovery possible. I do not think that we treat pneumonia long enough, or that we watch the cases far enough. I have no doubt that most of the gentlemem have seen these cases that come to be treated for an incipient phthisis, the result of an attack of pneumonia; there has been an inflammatory uxudation which has not been all removed; the patient thinking he is well, and possibly with the consent of his physician goes out; and after a while is troubled with a hacking cough, with pain upon one side or the other, and by and by has evidences of chronic bronchial pneumonia. These cases are very difficult to manage, for they are not unlike a case of ordinary incipient phthisis.

DR. LUTZ.—I would ask the Doctor what place the iodide of potassium holds in this disease? It is said to be an adjuvant in bringing about absorption and resolution in pneumonia. I would like to hear Dr. Porter's opinion of it, as he makes a specialty of diseases of the respiratory tract.

DR. PORTER.—Iodide of potassium may be used with great caution after the patient has passed the crisis, but at once abandoned if not well borne. Nothing should be permitted to interfere with nutrition.

DR. HENSKE.—For some time I have been using a plan of treatment proposed by Dr. Gehrung—a compression of the chest by bandages—and I would like to have the Doctor explain his plan to the Society.

DR. GEHRUNG.—This plan was explained ten years ago in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL. This plan supplies the requisites mentioned by Dr. Porter, in the treatment of pneumonia—warmth and rest. The plan consists in wrapping the chest, and especially in winter time, in a layer of cotton batting. This keeps the chest warm and acts like a poultice, but it is better than a poultice because it protects the chest from changes of atmosphere and temperature, which are very dangerous. So that first, it is beneficial by simply keeping the chest warm without addition of heat, so that the temperature is equal, and secondly, the cotton answers another purpose, that of dividing the pressure over the chest, which is afterward applied around it so as to give rest to the diseased lung. If the patient is in the early stage of pneumonia the treatment, of course, is

much better than in the later stages. The chest should be wrapped in the cotton batting from the axilla down to the edge of the ribs, this should be covered with a towel or other substance that will not stretch very much, also reaching from the axilla to the lower edge of the tenth rib, taking care not to cover the walls of the abdomen, which should be drawn as tightly as possible around the chest and pinned. If the pins are inserted longitudinally from above downward or from below upward it will not cut so readily. By binding it in this way the chest may be immobilized, and the patient who has been suffering with severe pain perhaps, is much relieved. As a rule, the patient holds the chest with his hands in this disease and tries to immobilize it and thus lessen the respiratory movement; but by using this method of treatment we do this mechanically for the patient. The bangages limit the chest movements, and the patient cannot hurt himself in breathing. The next point is that compression is very beneficial, I think, in lessening congestion in any organ; but I do not care to stand on that point now. As the case progresses further the patient becomes unable to cough up the accumulated mucus from the chest; this accumulation causes dullness, the patient becomes apnœic, the hebetude increases. When the lungs are full of accumulated mucus, and the patient is apparently too weak and suffers too much pain to be able to cough it up, the bandage when properly applied will enable him to expectorate it in large quantities without much effort and almost without pain, because the lung is made cylindrical, it has lost its lateral expansibility, and what is contained below in the tube of the solid cylinder must move upward under every diaphragmatic succussion, so I regard this as the most expedient and safest expectorant. Then it enables the patient to sleep, which he could not do otherwise, because as he falls asleep he neglects to hold his chest and to regulate his breathing and the pain awakens him again. This is avoided by the use of the bandage. A patient will fall asleep without the use of an anæsthetic or anodyne because he has little pain and there is free expectoration and respiration. We can frequently observe the temperature to go down three or four degrees in an hour after the application of the bandage, and the pulse decreases twenty to thirty beats in the minute. In the second stage this treatment is, so far as I know, the best. If necessary or advisable any other remedies may be used in addition. If the disease is thus taken

in hand in the early stages, the common sequelæ will rarely develope. I have frequently seen patients who have been suffering greatly before this treatment was adopted, who, on the day after the bandage was applied, could go about the house feeling pretty comfortable. Some experiments have been made at the City Hospital, with the bandage, under my direction, by some of the assistants; and they said that in cases where before the application of the bandage, morphine and other things were almost unable to produce rest, they were entirely successful, and that the following day the patient was able to be about the wards. A great many physicians who have treated patients by this method have told me that they have seen more wonderful cures of pneumonia by this treatment than they had ever seen before by any other method.

DR. A. GREEN.—Mr. President, in some respects I agree with Dr. Montgomery, and I agree partly with Dr. Porter; but I do not consider that pneumonia of moderate intensity, affecting a healthy subject, is a fatal disease at all. From my own experience and from the teaching of the best authorities on the subject, uncomplicated pneumonia is not a fatal disease at all. Dr. Montgomery has read us some statistics, but as I know some physicians call every trouble of the respiratory apparatus pneumonia. They call capillary bronchitis and bronchopneumonia, pneumonia. Under pneumonia I understand croupous pneumonia. It looks a good deal better to have a patient die of pneumonia than it does to have him die of bronchitis or catarrh. There are a great many cases called pneumonia that are not pneumonia. Bronchopneumonia is most times a fatal disease, it is fatal in its sequelæ. It is the precursor of phthisis. Then Dr. Montgomery spoke of cold applications to the chest. I have used cold applications to the chest a good many times and most times with excellent results; but in other cases I have had to take them away as they didn't agree with the patient. In some cases I use no application at all. Most cases don't need any topical applications. In robust, plethoric patients they are of service, but in weak, anæmic patients they sometimes do no good at all; warm applications, as suggested by Dr. Porter, are better in these cases. Again, it is agreed by most recent authorities that pneumonia is caused by some specific poison, something from the atmosphere, and it is actually an infectious disease, and I am astonished that Dr.

Montgomery, in speaking of this subject, didn't refer to quinine. Quinine is a great and powerful agent in the cure of this disease, as it reduces the temperature, being an antipyretic. Dr. Porter says that two things are especially neceessary in treating this disease—warmth and rest. I don't know but what the greatest danger in pneumonia is from the high temperature. That is the greatest danger; and if we use quinine we can regulate this. In very high fever I do like to use aconite in addition to quinine. I am a little afraid of veratrum viride. My chief remedies are quinine, ipecac, aconite and but very seldom tartar emetic. I think that in pneumonia venesection is contraindicated except in rare cases where pulmonary œdema of the healthy lung, or brain symptoms arise in healthy patients, it is indicated not because, but in spite of pneumonia; it then almost works like a charm, but otherwise I think it does more harm than good—for the pneumonic process itself it is contraindicated. When I am called to a patient who has pneumonia that is not complicated with any other disease and of moderate intensity, I think there is no question but what my patient will get well, although I wouldn't say so to the patient, as he might think he wasn't sick at all. I feel confident the patient will get well unless there is some complication, or affecting an old debilitated person with whom even moderate fever may prove fatal. Some of the gentlemen may remenber that some years ago a paper was read before the National Medical Association in which the author spoke of the use of quinine in pneumonia, and what success he had had with it. I had been using quinine in pneumonia for years and years. In those regions where there is malaria, quinine plays an important part in the treatment of pneumonia; and I wouldn't wait until the patient has high temperature, I would give it at once. A little of the tincture or of the extract of ipecacuanha may be added, and in the later stages; iodide of potassium seems to do very well in a good many cases. It is an excellent remedy to favor absorption. We know that all the inflammatory products are not expectorated, they undergo fatty degeneration. This fatty degeneration is more of a physiological than a pathological process. You will recollect that milk is the product of a fatty degeneration. So this fatty degeneration is very unlike the cheesy degeneration which is always a pathological process. Now we wish to remove these products of inflammation from the system, and to keep up the

nutrition of the patient. When iodide of potassium disagrees with the stomach, I would not give it; keep up nutrition, the system will take care of itself. I might give a remedy which Dr. Montgomery spoke of, carbonate of ammonia. In some cases, especially where the patient is weak, carbonate of ammonia will do good, and so will whiskey or brandy. I had some experience with pneumonia in the army, and at that time I thought that tartar emetic was the best remedy for the disease. You will recollect, Mr. President, that the surgeon general prohibited the use of tartar emetic in the army; but I was such a believer in it that I procured some of it and treated some of my patients with it according to the teachings, but as some of them died I gave it up, and put my patients on quinine, whiskey and brandy and nourishing food, and they all got well. So we must treat the patient according to his condition. Plethoric and anæmic, young and old, healthy and sickly subjects require different forms of treatment.

After all I have said I feel it a duty to myself to state that I do not consider this plan of treatment as a curative means in pneumonia. The same holds true with all remedies used in this or any other disease. We must not forget that we do not *cure* disease. We can only palliate, remove or lessen certain complications so that the disease may run a favorable course.

DR. SCOTT.—We now recognize the fact that pneumonia is an inflammatory disease; it is a mooted point among pathologists whether it does not belong to the specific form of disease; that is, whether pneumonia, instead of being merely an inflammation of the lungs is not a specific fever, of which this inflammation is but the local manifestation of the general disease. This view has been held in Europe for a considerable length of time and has been advocated in this country by Flint. We recognize three stages which have been spoken of here to-night: That is, the stage of engorgement, the stage of exudation and the stage of suppuration or resolution. There is an increase in the number of respirations in the stage of engorgement and the respiratory murmur is a little harsher. The stage of exudation is characterized by a fibrous exudation taking place in the small vessels which ramify in the air vesicles of the bronchi which become engorged. There is a hyperæmia of the blood vessels of the air vesicles, and of the minute bronchial tubes. This exudation in

the beginning is rather of a viscous character, and it is this which is said to cause the peculiar sound which is characteristic of the first stage of pneumonia. It is said by some authorities that the fibrinous exudation pours into the air vesicles and into the tubes, and this coheres them together, and as the air passes in and seperates them it causes that characteristic crackling sound; and then again other authorities say it is the air bubbling as it passes into the exudation of the air vesicles, breaking the surface of the exudation. Now the first stage is generally characterized by high fever and the pulse generally rises to eighty or ninety. The temperature is one hundred or one hundred and two degrees. It is in this stage of the disease that the antiphlogistic treatment is most effective. There are three forms of treatment: the antiphlogistic, the expectant and the stimulant. I have no faith in the expctant plan of treatment without the use of therapeutic agents. When I am called to a patient in the first statge of pheumonia, and find that there is a high fever, and the pulse between eighty and ninety, respiration thirty or forty, and the temperature over a hundred degrees, I adopt the antiphlogistic treatment, give a cathartic—and I am somewhat partial to the mercurial cathartics. One of the most effective remedies in this disease to control the heart's action is aconite; then in addition we have veratrum viride, and digitalis. I am especially partial to aconite; veratrum viride is too dangerous a remedy in unskilled hands. If administered by skillful attendants I would be willing to use it, but otherwise I would not A professional brother, in the northern part of Illinois, told me it was the sheet anchor in that part of the country for this trouble. Then there is another remedy which Dr. Green spoke of, and of which Dr. Roberts, of London, speaks very highly, that is, the tartar emetic. When I began the practice of medicine I had some admirable results from its use. I have used it again and again with excellent results; but it has gone out of fashion to use tartar emetic. Then we have digitalis; and I have a decided objection to use digitalis. Dr.——, of Leipzig, in speaking of digitalis uses this expression: "The long continued use of digitalis in cases where there is fibrous exudation is a dangerous remedy in controlling the heart's action." He says there is danger of forming heart clot; and especially he thinks is this the case in pneumonia. I think I have seen a case where the use of digitalis for the purpose of controlling the heart's action, did

control it most fatally and produced a heart clot. In regard to bleeding, I think that two-thirds of the cases of pneumonia do not require bleeding. I don't recollect a case of pneumonia in which I regretted that I didn't bleed. I don't say that there are not some cases in which bleeding is beneficial. If I am called to a patient with pneumonia whose pulse is very high, where the respiration is twenty or thirty a minute, and the temperature one hundred and two or one hundred and three degrees, I might bleed the patient, if he were plethoric. I have used warm applications in this disease for a long time—I have used flax-seed poultices. These applications should be applied warmer than the skin, and when they become cooler than the skin they should be removed. The plan which has been spoken of by Dr. Gehrung, may be good in the later stages of the disease; in the first and second stages I don't suppose it would answer so well. I frequently make use of the cotton batting, wrapping it around the patient's chest so as to keep it as quiet as possible, recognizing the same principle that the surgeon does when he immobilizes a limb when there is an injury of a joint. Another beneficial remedy which the American surgeons are beginning to make use of is the application of cold by wrapping the patient in a cold sheet. I recognize the fact that a patient may recover when the temperature has reached one hundred and seven degrees, but when it reaches one hundred and nine degrees I don't think recovery is possible. I have used the application of cold in scarlet fever and the result has been very good. There is no remedy which reaches the cause so readily, and upon which we can rely so readily, as upon the abstraction of heat by the use of cold. By the use of these applications the temperature comes down and the patient will sometimes fall asleep and become quiet and comfortable. As soon as the temperature rises again we can apply the cold again. This is a good plan for the treatmemt of scarlet fever.

DR. MONTGOMERY.—I haven't much to say in conclusion. I couldn't hear one-half of what the gentlemen said, but I believe that most of them agree with me in the treatment, except that Dr. Scott seems to have a good deal of faith in warm poultices. Some years ago I visited a number of hospitals in London, Vienna Dublin and New York, and I found that at Bellevue Hospital they had a good deal of faith in warm poultices, and they very

kindly showed me through and explained the method of treatment. When I came home I tried the plan and all my patients died, so I had to give it up. In regard to the iodide of potassium which has been referred to by Dr. Lutz, I will say that I am well aware that it has been recommended, but I haven't much faith in it. I was astonished that Dr. Green doesn't consider pneumonia a fatal disease, because my statistics show that it is, and I should think the men who made up the statistics should be able to diagnose a case of pneumonia.

ADDENDUM BY DR. E. MONTGOMERY.

I believe almost all the members present agreed with me in my views of the nature and treatment of this disease. I emphatically designated pneumonia as a very grave and very fatal disease. I showed by statistics taken from the mortuary records of the principal cities of the world, that with the exception of phthisis, pneumonia caused the greatest majority of the deaths. Two members of the Society differed from me in this view, giving as their reason, that my statistics were not perfect and reliable; that they were taken in cities where the great mass of the populace were not only liable to this disease, but from their poverty, wretchedness and very bad hygienic conditions were peculiarly apt to fall victims to this malady. And again that many of the cases I quoted as cases of pneumonia, were other diseases of the respiratory organs.

In answer to the first argument that my reported great mortality was owing to the fact that my statistics were taken from the poor, destitute and unhealthy denizens, I would say that in our most healthy and salubrious districts we find a vast number dying of pneumonia. Even in our city, which I regard as one of the healthiest in the world, the deaths from this disease are greater than from any other, with the exception of phthisis, and epidemics.

The argument that my mortuary statistics are false and extravagant, because many cases are recorded as cases of pneumonia, which are really cases of other acute affections of the respiratory organs has no foundation in fact, for in the classifications I have also recorded the number of deaths from other acute affections of the respiratory organs.

In the discussion of my paper at the medical society, one

member based his opposition to my views on the theory that "lung fever was a specific disease; that the local manifestations were the results of the fever, and therefore any active or prompt and vigorous employment of remedial measures would be entirely useless and uncalled for.

This argument in favor of the prevailing passive and expectant treatment of this protean disease, is in my humble opinion, entirely false, weak and untenable. We all know that the first manifestations of this disease are pain in the lungs, dyspnœa, thirst, restlessness, etc., etc., and if we can relieve the causes of these symptoms, the hyperæmia, inflammation and congestion of the lungs we will subdue the resultant fever.

All standard authorities agree that pneumonia is ushered in with a chill or rigor, immediately followed by quickened pulse and respiration, increased animal temperature, thirst, dyspnœa, wakefulness and restlessness, which with the pain in the chest and the physical signs clearly demonstrate, first hyperæmia, then inflammation and congestion of the lungs. If these organic lesions are not removed there will be consolidation and purulent infiltration. Now it does appear to me that the indications of cure are, in the first stage of the disease, to endeavor to prevent the hyperæmia, inflammation and congestion of the lungs. With this view if the patient is not *too young, too old, or too weak*, pounded ice should be applied to the chest, venesection, or dry or wet cups according to the condition of the patient, a good purgative of the mild chloride and jalap, and the pulse and animal temperature kept down with small doses of tartar emetic, veratrum viride, etc.

From a considerable amount of practical experience of over forty years, I am convinced that this antiphogistic treatment is not only perfectly safe but the very best that can be employed in sthenic cases occurring in robust subjects. In malarious districts, and in weak and debilitated subjects I am in favor of quinine, cod liver oil and carbonate of ammonia.

In the practice of medicine there is a great tendency to run into extremes, the vibrations of the pendulum halt not *in medias res;* because bleeding, calomel, tartar emetic and starvation diet have been carried to a dangerous and fatal extent, our modern expectant physicians discard antiphlogistic remedies entirely; and patiently and meekly contemplate the fatal

progress of disease under the unobtrusive action of warm poultices, emulsives, spirit of mendererus and whiskey punches.

Instead of the hot poultices, the flaxseed jacket, I would apply bladders of pounded ice, and in the advanced stages good large fly blisters. I wish it to be distinctly understood that I would not repeat the venesection or the calomel and jalap purgative, nor would I push the tartar emetic and veratrum viride after the fever heat and arterial excitement was subdued. I am aware of the fact that iodide of potassium has been highly recommended, and very generally employed in the stage of consolidation, and I am in favor of its administration in that period of the disease, and when purulent infiltration occurs I advocate the use of carbonate of ammonia, cod liver oil, quinine, egg flip, beef tea, cream, pancreatic emulsion, etc., etc.

To strengthen my belief in the great *fatality* of pneumonia, I see from the *National Board of Health Bulletin* of May 27th, 1882, that for the week ending May 13th, the city of Philadelphia had 356 deaths from all causes, thirty-five of these were from pneumonia, and forty-nine from phthisis. For the week ending April 26th, 1882, the city of Paris had 1,341 deaths fromall causes, of these there were 117 from pneumonia, 243 from phthisis pulmonalis, 44 from bronchitis, and 48 from other diseases of the respiratory organs. For the week ending May 13th, 1882 the total number of deaths from all causes in the city of New York was 765, of these 108 deaths were from pneumonia. With these patent facts before us, learned professors, authors and æsthetic physicians tell us that pneumonia is not a fatal disease, and when it is solely managed on the passive and expectant system almost every case will happily recover.

Article XXV.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty fifth Annual Meeting, held at Brittingham Hall Hannibal, Mo., May 16–17–18, 1882.

Second Day.—Wednesday, May 17, 1882.—Morning Session.

Phlegmasia Dolens.—By Dr. P. V. Schenck, of St. Louis.

This disease affords a special gratification as the study of the subject puts into action the finer qualities of the intellect. Long has been the argument and bitter the discussion on the etiology of this disease. We are no nearer the etiology of phlegmasia dolens than in the time of Morrisseau, and to-day it is as uncertain as when Dewees wrote. Leishman says that the profession has much neglected research upon this subject.

Is the cause local or constitutional; inflammatory or non-inflammatory? Cullen called every cold tumor a phlegmasia. Bœrhaave called it an *error loci*. Cullen supposed it owing to spasms. Virchow has observed cases of cancer of the stomach in which phlegmasia dolens occurs sometimes in the upper or lower extremities. Lee, Rokitansky deem it inflammatory; Virchow, Hewitt and Barnes deny this. Trousseau calls it a cachexia. Ferrier and Dewees have observed it in the arms of males. Denman regards it as an absorption of milk; others as a depôt of the same. Dugan regards it as due to inflammation of the nerves; others refer it to nervous irritation and depression, and among these is Alibert. Jameson thinks it a peculiar inflammation; Huller, Frazier as a peculiar inflammation in the muscles.

The circulating system is the most prominently attributed cause. Crural phlebitis—inflammation of the trunks of the veins of the lower extremities, is given. Dunglison regards it as due to the pressure of the gravid womb, preventing the flow o blood. Tyler Smith says it is a blood-poisoning; Denman, an absorption of acrid matter from the lochia; Mackenzie and Herveau, a toxihæmia; Velpeau, an inflammation extending from the uterine to the iliac veins. Barnes does not believe this

latter and has proven by post-mortem examination that it is not an extension of inflammation from the womb.

That a coagulum or clot is the cause is the general opinion of the profession. Playfair, Boulard, Schrœder, Virchow and others deem it due to a mechanical obstruction. There is hyperinosis and thrombosis of the surface which is a conservative act. Next, the lymphatic system has been invoked. Cancer of the uterus will affect the lymphatic system, although the walls of lymphatics are seldom primarily involved by cancer. If it be due to lymphangitis, what is its cause? Labor can hardly cause it. Tilbury Fox says that inflammation and obstruction of the lymphatics is one of the most important etiological factors. Hewitt regards it is due to a lymphatic thrombosis.

It may result from a parametritis and as a result inflammation, suppuration or ichor in the connective tissue. Virchow and Duplay have shown that even the walls of lymphatics may suppurate.

Whatever the theory may be, the treatment is the same. Dewees says that, in his time, all were unanimous on that point. Bleeding, purging and leeching were employed. Now, we are equally unanimous. The use of bandages to contract the vessels, that have lost the power of contractility, is followed; but it is essential to learn when to use them and how to apply the pressure. The materials used for this purpose have been various: the skins of animals, muslin, chamois skin, silk, etc. Martin's solid rubber bandage I think the best. It is unnecessary to describe its mode of application. I will relate a case in which I applied it.

Case I. Patient age 25, primipara, menstruated at seventeen and was always irregular; disappeared in July and suffered, for first two months, from morning sickness. In April the health was much better. She was delivered of a large boy, the perineum being torn. Eight days later the left leg was affected and two days after the right. The pain was controlled by anodynes. Rubber bandages were employed and the relief was so marked and immediate that when removed the patient asked hastily for their re-application and under their use she made a happy and speedy recovery.

VAGINAL INJECTIONS.—By Dr. P. V. SCHENCK, of St. Louis.

There is no more universally employed treatment than the

warm water injection, and there is a great mistake in regard to its manner of application. The patient generally buys a small syringe and takes the injection standing. My view of warm water injections is this, and it is an old one and known long, that it acts like a poultice in furnishing heat and moisture. We use the warm water not for cleansing alone, but it should answer the purpose of a poultice. It should be used freely, fully and with a temperature beyond the normal. It should be taken in the lying position and continued long and faithfully.

There are various appliances made, of but little use. The Davidson syringe tires out and wears out the palm of the hand and worries your patient and yourself. I have used every possible means to avoid it. I draw upon the city reservoir, its force won't hurt. I use it in the bath-room of the hospital; a patient lies down and is comfortable and what was formerly a labor is now a pleasure. What I consider as important to the success of operations on the womb, is proper preparation through this means.

The author here described the apparatus used in the Female Hospital.

DISCUSSION.

Dr. GEIGER, of St. Joseph.—I have two questions to ask in regard to the method. The instrument is certainly ingenious, but how can it be used by a practitioner in the country or country town? My question is this: In all or nearly all uterine affections we have varicose veins. In endometritis, for example, how or in what manner can these vessels be influenced by hot water injections in the vagina? I have never succeeded in controlling uterine catarrh by hot water or astringent solutions in the vagina. We must treat the part directly involved.

DR. ENGELMANN, of St. Louis.—Dr. Schenck has made an attack on a favorite instrument of mine—the fountain syringe. The instrument he has described is good for hospital purposes but will not do for private practice. The fountain syringe is of great service in private practice and in the country and if you choose to have it, it is easily constructed. It is serviceable everywhere.

The doctor refers to the advantage of force in this system. Dr. Schenck deals with patients whose parts may need such

force. In private practice, I would advise you not to use force. There are intense cases of uterine colic following the use of the vaginal syringe.

If the want of force is an objection to the fountain syringe, you can get any amount of force by hanging up your bucket high enough. Never advise your patient to hang up the bucket higher than one and a half or two inches above the point used. I do not know whether it is proper here to discuss the subject of vaginal injections.

I agree with Dr. Schenck as to the advantages of douches and would add that they should be used hot enough. Patients should use it hot for the uterus and vagina which is scalding for the external parts. Warm water will increase congestion; hot water will check it and contract the vessels. The position should be lying down and little force employed, grave results following this. The temperature of the water should be 110°; to check hemorrhage 110° to 120°.

DR. BORCK, of St. Louis.—I wish to call attention to one point. Too much force is not to be employed. The instrument shown by the doctor is good for hospital purposes. We can not clean the vagina well with this, because it is all puckered up and you clean the tops of the folds and, when you introduce a speculum, you find a lot of little rings not cleansed. When cleansing is your object introduce the old round wire speculum and you can do so thoroughly.

DR. CAMPBELL, of Callao.—I would like to ask whether the influence of injections in the uterus depends upon the force with which they are employed? In case the central opening of the nozzle is closed, would this not tend to prevent the danger of uterine colic? What is the philosophy of this? Why will hot water check hemorrhage as in post-partum?

DR. ENGELMANN, of St. Louis.—I think that there is an essential fault in Davidson's syringe. If the middle hole is stopped up it does good if the uterus is in a normal position, but in versions the side openings may send a stream into the os uteri. For that reason use no nozzle whatever, but a rubber tube. If you use hot water it does not burn but the metal or glass tube does; hence if you use a rubber tubing, which is a non-conducter,

you will obviate this difficulty. With the introduction of a large-sized rubber tube the washing will also be more thorough.

With regard to the effects of hot water, a washerwoman's hands are sufficient illustration. Hot water causes the tissues to shrink permanently. Hot water is used to check hemorrhages in abdominal surgery and that from the pedicle in ovariotomy; hot sponges are also used. For that reason always use hot and not warm water.

DR. KING, of Sedalia.—I feel very much interested in this subject. Dr. Schenck's method seems to have led us away from the track of the others. I have found hot water to do much better than cold. I use it so hot, sometimes, that the external parts will not bear it. I have experienced the difficulty that Dr. Borck mentions. I have seen a syringe having two springs which expand at the nozzle.

As to Dr. Engelmann's objections; deaths from injections in the uterus are told to us and they are the same every time. Water is said to be such an irritant that it produces death. I do not think so; water is a bland fluid. We may put some in the uterus and give no pain and it produces no shock. Emmett and others say, do not use intrauterine solutions without dilating the neck first.

The old syringe sucks up half water and half air and the uterus has air and water thrown in it. Contraction of the internal os takes place, the air is expanded by the heat and pain and shock supervene.

I have seen two such cases and upon passing a female catheter into the uterus water and air coming out demonstrated the truth of this. On the whole, I think Dr. Schenck's paper a good one.

DR. MATTHEWS, of Carthage.—If that is so why do you not have shock in obstructive dysmenorrhœa and in labor?

DR. KING.—You do not have the presence of air.

DR. SIMMONS, of St. Joseph.—It seems to me that there is a little water on the brain in medical societies in these latter days. The question seems to be how can you get water in a woman and then how can you get it in very hot. This is more important. What do you introduce the water there for? Is it neces-

sary to have all that complicated machinery to have a poultice? If not, for cleansing anything else might be as good. Text-books on natural philosophy tell us that cold contracts and heat expands. Now, if you introduce water as hot as can be borne in the vagina how does it contract? Let them explain how heat produces this contraction. The solution is that probably the vaso-motor nerves influencing the calibre of the arterioles are irritated. Is not that the object of the heat?

If so it was known by some years ago. Thompson, who was so much ridiculed, told us that hot water was good for controlling hæmorrhage. Why, when cold is applied to the abdomen, does it control uterine hæmorrhage? And why can't you control with heat without introducing it inside and using force? Still I am satisfied that hot water injections constitute the best remedial agent to control uterine hæmorrhages.

DR. SCHENK.—I am glad the subject was brought up for discussion. Dr. Geiger has said that he was never successful in the use of warm water injections. I have seen innumerable cases of acute endometritis cured in three days by the use of this agent. I know that at present there is a contest among surgeons as to dry and wet treatment in otorrhœa. The majority of aurists use the wet method. There was one misunderstanding. I did not wish to say that water injections did not induce cleanliness.

Dr. Geiger has not been able to cure uterine catarrh and endometritis with warm water injections. If he will remember that the womb is an erectile organ and the cervix its regulator and that influences brought to bear upon the latter have an effect upon the former he will understand my paper better. As the one dilates the other contracts; we remove submucous fibroids for that purpose. It is a question whether when the cervix is torn there is not a mimic labor going on all the time. I do not say that uterine catarrh can be cured when the cilia are gone no more than in nasal.

We have been laughed at because we sew up where we cut. You must grant that we have more lacerated cervices, more uterine troubles and it is because we are a mixed race, large-headed men marrying small-headed women.

When we propose to operate at the hospital we use the hot water as the most valuable aid that we have.

In regard to medicating injections, I hope I was not understood to say that we could cure all uterine diseases by medication. Dr. Engelmann says that the use of injections has produced uterine colic. I had a patient who died from the prick of a pin; don't buy pins. I have used this instrument eight months and have yet the first case of uterine colic to see.

I am well aware that the vagina is nothing but a slit; but I do not know that I cannot throw up an injection into it. I have seen the vagina afterwards and seen the effects and patients have received more benefit in eight months than they did in eight years before.

As to Dr. King, I agree with him in regard to the air. This instrument is easily made and I claim that it is, to a certain extent, the best.

Clinical Lecture.

Article XXVI.

Synopsis of a Clinical Lecture. By J. P. Kingsley, M. D. Professor of Diseases of Children, in Missouri Medical College.

Our first call this morning, gentlemen, is from a mother, who comes to ask us to perform the last sad rites a physician is called upon to perform for his patient—to write a burial certificate. She wished to know why her child died. Let us repeat the question—

WHY DO LITTLE CHILDREN DIE?

Every minute of time brings recruits into the world, who, like the May-fly, live but a brief hour and then pass away. In the city the mortality is much greater than in the country, and as a rule, the larger the city the greater the proportion of deaths. The causes that combine to produce this result are: Impure air, want of proper ventilation, residence in alleys, crowded tenement houses, residence in cellars, residence over made ground, want of cleanliness, over-feeding, improper food, want of food, want of air, exposure, improper clothing, hereditary diseases and influences, over-dosing, etc. We might go on and enumerate many more causes, but this will suffice to give a general idea of the causes of the great mortality among children in a large city. As we proceed with our clinic I think you will probably be forcibly reminded of some of the causes I have enumerated.

This little patient, the mother tells us, is four months old; vomits after taking the breast; looks well and plump; mother healthy with full breasts, has more milk than the child needs. This child does not vomit. The mother nurses it too much, and it runs over. Nature has wisely provided the infant with a comparatively straight stomach so that vomiting is an easy process. Many mothers over-feed their children. They give them

the breast or the bottle every time they cry or fret. This is not right. The stomach is overloaded, the digestive organs have no rest and the surplus must be disposed of either by the mouth or through the bowels. The treatment consists in feeding less frequently and giving a smaller amount of food at each feeding. This child should be fed once in every four hours and no oftener, instead of every hour, and it should not be allowed to fill the stomach to its utmost capacity.

Here is another child nine months old; has no teeth; looks pale and thin. Mother says it has indigestion because it passes its food as it eats it. Says she feeds it at table and gives it everything she eats, besides nursing it at the breast.

Improper feeding is a fruitful source of disease and death. Few babies escape being fed at table long before they have a tooth. The fond or thoughtless mother imagines that the child's digestive organs are like her's, and therefore gives it everything she herself eats. It should not be forgotten that the infant's digestive organs are made to digest nothing but milk, and the milk should be human milk. All substitutes for milk are failures. All other substances are foreign matters. All the artificial foods for infants must be combined with milk to nourish the child. Milk is always the basis of every artificialfood. The only treatment required in this case before us is the abandonment of all food except the mother's milk.

This child is younger than the last, being seven months old; is cross and fretful; has a dozen greenish and whitish passages a day; passes white lumps. It is hand raised; was weaned when three months old.

We have here another case of improper feeding. The cow's milk fed this child is not assimilated. Its digestive organs are a cheese factory. The white lumps it passes are lumps of casein. This casein is precipitated in the stomach and then passes on through the alimentary canal, as so much foreign matter. The casein of cow's milk precipitates in large hard flakes, while that of human milk precipitates in masses just the reverse. We see here a physical difference in the two kinds of milk, if not a chemical. We can give this child relief by preventing this precipitation in large flakes. We can add strained rice water to the milk, making it half and half. The rice, of course, will not be digested; it will act mechanically, the minute particles of rice will prevent the firm coagulation of the casein and allow it to

become digested. The precipitation can be retarded by the use of alkali. A tablespoonful of lime water or five grains of bicarbonate of soda put in each bottle of milk will accomplish this end. When curd is discharged by the bowels of a nursing child a little barley water given before nursing acts very happily in a majority of cases.

We will direct for this child:

℞ Acidi Carbolici..... gtt. ij.
Bismuthi Subnitratis..... ℥ii.
Mist. Cretæ..... ℥jss.
Syrupi ..... ℥ss.

M.

S. A teaspoonful every two or three hours.

This prescription is quite pleasant and children rarely object to it. The bismuth acts mechanically, allaying the irritability of the stomach and bowels by its covering it with a coating of bismuth. The chalk is an antacid. The carbolic acid is antiseptic and prevents fermentation from taking place and acts as a sedative. In simple entero-colitis I know of nothing better. Attention of course must always be given to the diet.

Periscope.

Article XXVII.

ANATOMY.

Corpus Luteum.—Before a recent meeting of the Obstetrical Society of London (*British Medical Journal*) a paper on the above subject was read. Two cases were described. The first was that of a prostitute, aged twenty-one, who died from prussic acid poisoning. In her ovary a fully ripe corpus luteum was found, although she was neither pregnant nor menstruating. The difference between the corpus luteum of pregnancy and that of menstruation was usually ascribed to the increased amount of nourishment received by the follicle in the pregnant state. In this case, he thought that prostitution was probably the cause of the increased nutrition and development of the follicle. The second case was that of a woman, who died from gangrene of a uterine fibro-myoma. The ovary contained a true corpus luteum, and in other respects resembled the ovary of a pregnant woman. In this case, he thought the increased determination of blood to the part, in consequence of the fibroid, was the explanation of the size of the corpus luteum. The President said that it was important to have the view confirmed that a corpus luteum having all the characters of that met with in pregnancy, occurred in women who were neither pregnant nor menstruating. He had seen such a corpus luteum in an aged woman, who was believed to be salacious, and he had dissected cases of pregnancy with complete absence of corpus luteum.—[*Medical and Surgical Reporter.*

The Sixth Cerebral Ventricle.—The sixth cerebral ventricle is a feature of coarse encephalic anatomy, commonly ignored in text-books and monographs dealing with the brain. Like the fifth ventricle, which is not a true ventricle—that is, not derived from a modification of the lumen of a medullary tube—it is a

secondary formation. Just as the fifth ventricle is formed by the mesal faces of the atrophied hemispheric walls or the septum lucidum, the callosum and fornices, so the sixth is formed by the splenium of the callosum and the fornices. It is not constant, being found by Techini and Staurenghi in twenty-six subjects, out of one hundred and forty-five. The cavity is lined with epithelium and may become the seat of hydropsy. This "ven tricle," first described by Verga, is known to the German anatomists as the "Fornixventrikel."—[*American Journal of Neurology and Psychiatry.*

A REPORT OF THREE HUMAN MONSTROSITIES.—In the *American Journal of Medical Seiences* for July, 1882, DR. M. A. KOOGLER publishes an account of three human monstrosities, one cyclops and two acrania. The cyclops, which is of special interest, was a female, born at term, weighed four pounds, and body well developed. It had but one eye, of normal size, situated in the middle of its face, and a little above where the mouth should have been. The nose consisted of a mere conical fleshy semi-tube, starting out by its smaller end, immediately above the eye; its dimensions being a little over an inch in length, and about a half an inch in diameter at its free extremity. It contained no cartilage, and, instead of two anterior nares there was but one small, round opening, or canal, about one-fourth of an inch in depth. It was quite soft and flexible, and hung loosely over the eye. The maxillary bones were united, and no line between them could be determined. The mouth consisted of a small aperature, and situated under a small fold of skin, immediately beneath the symphysis of the inferior maxillary bone. A probe could be passed through the small opening into the throat. The ears were of normal size, but situated much lower, and approaching each other. There were apparently no external auditory canals, but instead, there were two small depressions. The ears were symmetrical, and the lobes and the cartilages below the tragi and anti-tragi were absent, and in their place, running inwards and approaching one another, were two slit-like openings, about one-third of an inch in length. These openings communicated with the larynx, and a probe could be passed in the one and out of the other. The father stated that during the time it lived, "its breathing was through these openings."

DISSECTION OF A HUMAN OTOCEPHALIC CYCLOPS MONSTER.—In the *American Journal of Medical Sciences*, for July, 1882, DR. R. MEADE SMITH and DR. A. J. PARKER publish notes of a careful dissection of a case of otocephalic monstrosity, with especial attention to the developmental laws, through whose deviation the departures from the normal types were formed. The most remarkable feature of the case described, and one which serves to make it *unique* in the recorded cases of human monsters, was the condition of the auditory apparatus. The two mallets were united beneath the upper jaw, in the pharynx, the lower jaw being absent, by a slender splint-like bone, which the authors believe to represent an ossified cartilage of Meckel, and thus a rudimentary lower jaw. They also advance a new theory, which seems plausible, as to the mode of production of cyclops monster; that is, that a single optic bud is given off from the thalamencephalon, and that this tends to subdivide, rather than that two buds tend to coalesce, and so the single optic bud prevents the development of the fronto-nasal process rather than the reverse.

MENTAL AND NERVOUS DISEASES.

SENSORY EPILEPSY.—In the *New York Medical Journal and Obstetrical Review* for June, 1882, Dr. Allan McLane Hamilton presents a paper on cortical sensory discharging lesions (sensory epilepsy), or that form of epilepsy in which the sensory element preponderates, whether as an aura preceding a motor discharge, or occurring as a part of a paroxysm in which there is little or no succeeding motorial disturbance, but simply a discharge, consisting of a preliminary alteration of special sensibility, and an immediate subsequent stage of unconsciousness. In the majority of these cases, there is, he remarks, the simplest form of subjective consciousness of sensory impressions, most of the attacks consisting of the primary stages suggested by Jackson, such as a sudden stench in the nostrils, or colored vision; but in two or three instances there has been much more than this, and the phenomena have been quite remarkable. In some cases the occurrence of a transient contraction of the fingers of one hand lent additional interest to the history, especially in regard to localization. In one case the patient's sensory condition was not the dreamy state referred to by Jackson, but there was always an hallucination of taste, the patient declaring that he had tasted copper or

some other nauseous substance; and in some cases there were equally striking proofs of the primary involvement of the cortical centers. The occasional occurrence of hallucinations as a part of the epileptic attack has been mentioned by various authors. Brierre de Boismont, Esquirol, Delasiauve, Maisonneuve, Billod, Sommers, Bergmann, Guislain, and Tigges, as well as many other writers, have furnished cases which began with sensory auræ or hallucinations, but none of them, says Dr. Hamilton, have made a distinct classification of sensory and motorial epilepsy, and but little mention is made of the disease where the paroxyms consist solely of sensory phenomena, the disturbance of motility being absent. He has not, so far, met with cases in which the individual was influenced by his hallucinations to express them by special motor acts before the attack, except in an unimportant way. On two occasions he has been present at the beginning of a sensory attack. In one instant the patient complained afterward that he smelt a terrible stench. Immediately before losing consciousness he carried his hand to his nose, and immediately afterward became oblivious to everything about him. A similar action was performed by a patient who forcibly placed both hands over his eyes, as it afterward transpired, to keep out a bright light that blinded him. In the light of all that has been done in the localization of cerebral disease, Dr. Hamilton thinks that we should discover, if possible, the part played by the cortical sensory centers in the genesis of such epilepsies. So far, but little has been brought forward to connect lesions of the sensory centers with special symptoms. In our pathological discussion of sensory epilepsy the distinction should be made between lesions of the thalamus opticus and those of the cortical sensory zones, for in the one instance the sensory disturbance may be called essential, while in the other there may be said to be an affection of special subjective consciousness. If an impression upon the organ of sense is sufficiently intense to impress the infra-cortical central sensory apparatus (thalamus opticus) centripetally, it does not follow that there need be any implicated alteration of function in the cortical sensory regions. A lesion of the posterior part of the thalamus opticus, for example, may result in blindness—a *mechanical* blindness, if such an expression can be used, though there are exceptional cases reported by Brown-Séquard where even this is not the case—but it will not produce *word*-blindness, a pure psychical defect.

There must be some altered cortical function to account for the unmistakable mental operations which permit the individual to recognize the altered sense-states and enter into the involuntary formulation of hallucinations which are afterward remembered. The author therefore, does not believe that the disease of the thalamus opticus *alone* plays any part in the origination of hallucinations. He thinks we may recognize a form of epilepsy of sensorial character, the motorial features being either absent or insignificant; that such sensory manifestations arise from an unstable condition of the sensory cortical centers; that a light grade of sensory disturbance may indicate simply a suspension of inhibition through an exhausted state of the perceptible centers which are infra-cortical centers, or a suspension of the influence of the superior cortical centers, in which case the process is more complex, and the result may be the formation of new hallucinations.

PRACTICE OF MEDICINE.

DIALYSED IRON IN THE TREATMENT OF ARSENICAL POISONING. —Dr. A. M. Bullard of Wicks, M. T., writes to the *Medical and Surgical Reporter* in substance as follows: In the smelting of lead and silver ores, one of the worst features is the constant inhalation of arsenical fumes. When first employed by the Alta Montana Company, to take charge of their hospital, a number of cases of arsenical poisoning came under my observation, and they were the more difficult to treat on account of their complication with "leading." I tried the various remedies recommended for such cases, with but poor results. At last I was led to try dialysed iron, and was met in all cases with most gratifying success.

A number of men employed about the smelting furnace, and especially in dipping the molten lead, have been apparently prostrated, from the effects of the fumes, and were in every case relieved by dyalised iron. A mild purgative was given within twelve hours. I have recommended, and, indeed, insisted on, every man who is exposed to the arsenical fumes, taking a dose of the iron daily. The consequence has been, that we have had but one case of poisoning needing hospital treatment, and this one insisted that his case was one of "indigestion and dyspepsia," and would take nothing till compelled

to enter the hospital, where, under the administration of dialysed iron, he speedily recovered.

In the past two years, I think I am safe in saying that fully two hundred cases of arsenical poisoning have been cured in this camp by dialysed iron. I could cite any or all of them, with symptoms, treatment etc., but I think it unnecessary, as they so nearly resemble those already mentioned; suffice it to say, that all experienced the nausea, griping, vomiting, muscular tremor, etc. I have given the iron, in half-ounce doses, three times daily, with no constitutional disturbances whatever, even after ten and often twenty days administration. The teeth are not discolored, bowels not constipated, and digestion not deranged.

The men have learned its virtues, and come regularly with "please fill my iron bottle again." They will not do without it, any more than an Irishman will not do without his "salts and senna." It has saved many a man his wages and many a day of sickness. In fact, I feel convinced that this preparation is indispensable where men are liable to inhale the fumes of arsenic.

Without a remedy of this kind, I am satisfied no man, however strong, could inhale the fumes incident to smelting, where the ores contain arsenic, and stand it more than three or four days. I can fully and confidently recommend this preparation of iron to the profession, and even to foremen of smelting works where there is no physician, for it is harmless and invaluable. "An ounce of prevention is worth a pound of cure;" or a "pound of cure," is worth infinitely more to a company, than are hospitals full of men poisoned with arsenic. Our hospital has been built, medicines bought, physicians and nurses paid, and accommodations for thirty beds provided, inside of two years, by a small monthly assessment on each miner and laborer employed by the company, and all are satisfied; none more so than the smelter hands, who can and do get a "bottle of that iron," and keep at work. The preparation which I have used, and to the good effects of which I can testify, is Wyeth's, of Philadelphia.

TREATMENT OF TONSILLITIS AND HYPERTROPHY OF THE TONSILS BY BICARBONATE OF SODA.—Dr. Armangué (*Révue de Thérapeutique*) reports seven cases of tonsillitis cured in less than twenty-

four hours by the bicarbonate of soda. This method of treatment was introduced by Dr. Giné, professor of clinical surgery, who employed bicarbonate of soda locally either by insufflation, or directly applied by the finger of the patient. The applications should be frequently repeated nntil the disease disappears. Dr. Giné relates dozens of cases in which a cure was accomplished in twenty-four hours, and has never seen this method fail to produce a good effect. The alleviation is almost always immediate and is never long delayed. Its efficacy is specially marked in the prodromic period of tonsillitis, when it will invariably abort the disease. According to Dr. Giné, bicarbonate of soda does not diminish the predisposition of anginas, but only arrests their developments. Excision of the tonsils is a useless operation in cases of hypertrophy of the tonsils, since the hypertrophy can be rapidly removed by frequent applications of the salt of soda.—(*L'Union Méd. du Canada*).—[*Practitioner*.

MISCELLANEOUS.

THE BIRTH OF AN ELEPHANT.—DR. GUSTAVUS E. SUSSDORF, of New York, contributes to the July number of the *New York Medical Journal and Obstetrical Review* an account of the process of parturition as it took place in the case of the elephant "Queen" last February. The period of gestation was 597 days. There was no noticeable enlargement of the abdomen until it suddenly became quite prominent the day before labor began. This enlargement did not subside with the expulsion of the fœtus and after-birth, but continued four days longer. During the latter month the mammæ became swollen, and soon filled with serous milk. These were the only signs of pregnancy to be seen. The labor began at 3 P. M., February 2d. At this time the mammæ were greatly distended with milk, which came away continuously in drops. The vagina now began to drop down and swell. In a short time thick mucus began to come from the vagina in long ropy strings, and almost poured out just before delivery. From 3 until 8 o'clock "Queen" was evidently uneasy, as she constantly moved her body from side to side, but did not seem to suffer *pain*, and quietly munched some hay up to the very moment of delivery. At 8.10 the young elephant was born, the head presenting, completely enveloped by the unbroken membranes. The head and part of the body rested between the hind-legs of the mother, and touched the

ground. Without waiting a moment, the mother, ruptured the membranes with her two hind-feet, when the young one rolled out, on its back. The membranes were no sooner liberated than they quickly returned into the vagina. The umbilical cord had not been seen at all, having probably been torn away during the descent of the fœtus. The mother now quickly turned to the young, and, on seeing it, began to roar and bellow furiously, which she continued for ten minutes. As soon as she saw the baby she also at once placed one fore-foot on it and rolled it several times, as one does a lemon under the palm of the hand, the bellowing and roaring continuing. In a moment or two more she placed her abdomen upon a short post in the ground, to which she was chained, standing almost upon her head, and grasping the post with her trunk, thus forcing the abdomen with great power against the post. "Queen" remained in that position for about ten minutes; then became quiet, and, while playing with her young, took some food. Nothing indicative of after pains could be recognized after this, and in one hour and thirty minutes the placenta was expelled. With it there came about two quarts of clotted blood. There was no hæmorrhage either from the uterus or from the umbilicus of the calf. The duration of labor was five hours and ten minutes. The calf, a female, weighed 245 pounds, and stood just three feet high. It began nursing one hour and forty minutes after birth. It had two middle upper teeth. The umbilical cord entered the abdomen about three inches anterior to the vagina, and had been detached very close to the abdomen, as none was visible at that point, the canal being large enough to admit a good-sized finger for half an inch. Dr. Sussdorff remarks that there are several very interesting and instructive points in this history. First, the period of gestation is evidently not affected by change of climate and captivity, lasting about nineteen and a half months. The time of labor is short, and evidently there is not much pain. The sagacity of the animal is remarkable, as shown by the manner in which she ruptured the membranes, the means she took to excite respiration by rolling the young, and, finally to express the placenta from the uterus. He then describes the placenta and the fœtal membranes, comparing them with those described by Owen, and adds a summary of various observations that have been made of the milk of the elephant as compared with that of other animals, giving drawings which show its microscopical characters in comparison with those of cow's milk.

Reports on Recent Progress in Medicine.

Article XXVIII.

Report on Venereal Diseases. By R. W. Wilcox, M. D.

Endoscopy.—During the past year the writer has paid considerable attention to this branch of diagnosis as it is taught in the German schools and this article will be a brief *resumé* of the subject.

Instruments.—It seems that the slow progress that endoscopy has made towards its general acceptation by the profession at large has been due in a great measure to the clumsy and complicated instruments that were formerly thought necessary. Now that instruments are modified and multiplied by the hundred, the general practitioner rightly hesitates before he begins on a new field of research, especially if the materials for it are likely to be expensive as well as elaborate. But thanks to the labors in the German schools endoscopy now can be carried on with apparatus of as small cost as any other method of diagnosis. Almost any source of light can be made available, even a tallow candle, but if a flat flame is used, the narrow edge of the light should be turned towards the reflector.

Instead of the complicated lenses and mirrors of the older instruments, a reflector, of large size, such as is used in laryngoscopy, with or without a head band, (the reflector used in otology has a too short focal distance) is all that is essential; surely thus far the requirements fall within the measure of every practitioner. For the endoscope itself, a simple rubber or silver tube, with thin walls so as to expose the greatest surface with the smallest possible sized instrument, furnished with funnel extremity, for holding it in place and for throwing in the light more readily, this instrument furnished with a guide as is an anal speculum, gives the means of exposing the urethra to the eye of the observer. Of course, one can go on multiplying endoscopes of all sizes and lengths but in practice three or four of numbers twenty or twenty-two, one of which shall be long enough to explore the whole of the urethra, the others shorter,

will be found amply sufficient. These endoscopes should be made so that the obliquely projecting end of the guide shall fit closely into the shoulder of the endoscope, which last should be rounded. For the rest of the outfit a slender wire carrying a small brush, another wire fitted to receive a crayon of sulphate of copper or nitrate of silver, a small knife similarly mounted, these instruments may be made to fit into a handle such as is used in throat practice or may have their proximal ends bent, so that the hand of the operator may not obstruct the field of view, in the same way that the instruments for operation on the tympanum are arranged. A few splinters of wood of the diameter of a match and about ten inches long, upon the ends of which, one can twist a bit of absorbent cotton completes the list of apparatus.

METHOD.—The patient sits in an ordinary chair with legs well apart, a high chair being preferable but not essential. The light is placed at one side and at a little distance above the level of the pelvis, the operator being in front. The endoscope with guide in place is lubricated and passed well into the urethra and if this is the first examinasion, so that the seat of the lesion is not known, as near to the bladder as possible, the penis being capable of being compressed from end to end to a considerable extent, so that a much shorter instrument, can be used than one would suppose. The endoscope is held in the left hand, the back of which is directed upwards, the index finger above and the thumb below grasp the funnel end of the endoscope on its edge, the second and fourth fingers lie on the dorsum of the penis while the third finger passes under it, thus giving a firm hold and maintaining the endoscope in position. The guide is then withdrawn and the mucus gently wiped from the exposed surface of the urethra with one of the swabs above mentioned. The light is then thrown upon the field of view by the reflector and when this field has been examined the endoscope is slowly withdrawn until another surface comes into the lumen of the endoscope and by continuing this process the whole urethra is examined, from the bladder to the meatus. The field of view is in miniature what one sees as he slowly withdraws a Ferguson speculum from the vagina.

The instrument should never be introduced or advanced in the urethra without that the guide is held firmly in place with

the thumb of the right hand, as only with this precaution is injury to the urethral walls avoided. When one is making applications to the urethra through the endoscope it is a convenience to have the reflecter mounted upon a head band, but it is not a necessity as the patient can hold the endoscope in place.

ADVANTAGES.—Endoscopy enables a careful study of the urethral surfaces to be made directly, during life. That there is necessity for this is evident because of the rarity of observations on the dead subject, the majority of urethral cases not imperilling life and the prevalence of making no examination of the urethra, on the one hand, and on the other because one finds even in recent publications such a statement as this, "polypi are never found in the urethra," although *a priori* there is no reason why polypi should not be found in the urethra as well as on any other mucous surface that has undergone chronic inflammation. Further one finds described "peri-urethral cyst" as well as other peculiarities, which to a student of endoscopy suggests the need of using all means of physical examination before arriving at a diagnosis. That polypi do exist in the urethra, is proven, indepently of endoscopy, since there are a few cases on record where they have been caught and extracted in the eye of a catheter as it was withdrawn. In the recent publications of endoscopists, one finds new conditions of the urethra described. The practice of endoscopy permits the exact application of remedies to the diseased surface and not to the surrounding healthy surfaces which they will be sure to injure. It is not claimed that in a case of acute general urethritis the endoscope is to be used but no more objection could be made to it than to the act of passing a catheter, under similar circumstances, should necessity arise. There is no reason why an acute inflammation localized in the anterior portion of the urethra should not be treated through the endoscope, not only as treating the existing inflammation itself but also with a view to prevent its advancement. This is certainly safer than the so-called abortive injections of nitrate of silver.

It is chiefly in those chronic cases where the patients have been through injections, diuretics and balsams, very likely under the care of as many physicians, that endoscopy seems to be of the most value. In these cases, and they are generally those in which the disease lingers in the deep urethra, it is that one applies through the endoscope the solutions of nitrate of silver, iodine,

or the crayons of sulphate of copper or any other medicament as he considers that the case demands. Indeed the improvement is usually marked as one watches it from visit to visit even the most obstinate and relapsing cases yielding with a rapidity that is surprising.

The detection of incipient stricture is easy, even when nothing externally can be felt, from the fact that the walls of the urethra remain slightly open after the withdrawal of the endoscope or even from the loss of elasticity which can be readily determined through the instrument. Sometimes a stricture into which a bougie refuses to go, can be passed, not by the the expedient of filling the urethra with filiform bougies and then pushing on each one until at last one is found that will enter, but by passing an endoscope as near as possible to the stricture and then by inserting the bougie into the lumen of the stricture which lies in the field of view, the endoscope withdrawn, the procedure remains as before. Further, polypi can be snared or excised and their bases properly treated to prevent their re-appearance. In a few cases symptoms of a relapse of an old urethritis may appear and on examination nothing be found but an inflamed mucous follicle with perhaps about it a small area of redness. Through the endoscope this small pustule can be incised with no difficulty.

After the application of the endoscope to examination of the urethra comes its use in the investigation of the bladder. The female bladder in its posterior two-thirds is readily enough seen with an ordinary instrument which has a fenestrum of glass, set obliquely in the open end, so that the bladder walls may be kept distended by the urine. It has been found in practice that the urine is sufficiently transparent to obviate the necessity of filling the bladder with clear water. The instrument is moved about, being held at a little distance from the bladder wall, until all the surface possible is examined. To examine the remaining portion, another instrument must be used, having its distal extremity shaped like a Thompson stone searcher, a fenestrum in the concavity and a lens or mirror to bring the image into the axis of the instrument. These instruments are also suitable for the male bladder but another question, that of illumination, becomes important. With the ordinary sources of light the bladder can be investigated but the details are not clear enough for practical distinctions. One of the manufacturers of surgical

instruments at Vienna has recently contrived an apparatus, making use of the electric light which works well but is somewhat complicated and quite expensive. The field of view is a horseshoe in shape, as it is necessary that the conductors and the pipes of the cooling apparatus shall pass inside the endoscope. But one gets a different impression from the two modes of lighting and as yet not enough has been done to enable very useful conclusions to be drawn. It is claimed that a slender probe can be passed down outside the endoscope and into the bladder openings of the ureters by aid of the light thrown into the bladder by the endoscope, but what practical use this may be put to remains to be seen. It has been also suggested that the endoscope could be used in the examination of bullet wounds as well as in the study of sinuses, but as yet the writer does not know that this suggestion has been carried out.

There is no doubt that endoscopy could be added to the armamentarium of the practitioner with advantage both to the study and treatment, especially of urethral disease and it is to be hoped that when its use becomes universal the treatment of a urethritis will become less of an uncertainty.

PARIS, June, 1882.

Article. XXIX.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M. M. D., of St. Louis.

Oleates in the Dermatoses.—We read in the *Medical Summary* that Dr. Shoemaker read a paper at the recent meeting of the Pennsylvania State Medical Society, in which he claimed the following advantages of the oleates over ordinary ointments: First: Their deep penetration. The oleic acid gives them active ability to penetrate rapidly into the animal economy, and renders any salt with which it is combined more active and effective in dermic medication. Second: their freedom from rancidity. Third: their cleanliness of application. Fourth: their great economy. Fifth: their antiseptic action. Oleate of zinc is of great value in hyperidrosis and osmidrosis and eczema vesiculosum. Oleate of copper is of great value in tinea. Oleate of alumina is of great value in checking muco-purulent discharges. Oleate of iron has a mild astringent action. Oleate of arsenic is of value in lupus and the ulcerating variety of epithelioma, and is better borne than other forms of arsenic. The surface must be abraded, otherwise there is no result. Oleate of silver is of value as a local application in erysipelas, and when sprinkled over old chronic ulcers sets up a healthier state of the parts. It is of use in carbuncles and boils, and will often arrest pustulation in its earlier stages.

Leprosy Treated by Tincture Eucalyptus.—Ed. Sinclair Stevenson details in the *Lancet* July 1882, a case of well marked leprosy occurring near Capetown, Africa. She was given chaulmoogra oil, which made her sick, and was discontinued. She was given half-ounce doses of tincture of eucalyptus in conjunction with quinine and lime-juice and steadily improved until in Nov. 1881, ten months later, but very slight remnants of the disease existed. The author sums up his remarks as follows:

I have no doubt to which drug I am to attribute the recovery

of the patient. Quinine, lime-juice and eucalyptus were given together, but quinine was given long before any improvement began, and the lime-juice was soon left off. As to the origin of the complaint, I could not trace any taint in her immediate family, but she and her husband are cousins, and in his family the disease exists. Mr. Hutchinson in his able paper is inclined to trace the origin of leprosy to fish-eating. The inhabitants of this district do not eat fresh fish, not that they dislike the diet, but because that kind of food is scarce. On the other hand, dried and salt fish is much used, especially by the colored population; but vegetables are very scarce, some families going through the whole year without them; rice and meat, frequently salted, form the staple of their diet. The supposition that leprosy may arise from want of leguminous food, as scurvy does, may be as likely as that of the fish hypothesis.

SPONTANEOUS FALLING OF THE NAILS IN ATAXICS.—Pitres in *le Progrès Médical* records two new cases in one of which the nails of the toes dropped off, the pains simultaneously disappeared and a new growth of nails took place. Two years after, each re-appearance of the ataxic attacks was accompanied by the same phenomena about the big toes. Nothing abnormal could be detected about the new nails.

In the second case preceding the fall of the nail there is intense pain. Since 1870 this occurs every year on the left (affected) side, but has only taken place twice on the right. In neither case was there suppuration or traumatism.

The cause is doubtless a disturbance of nutrition analogous to the other trophic disturbances such as, arthropathies, spontaneous fractures, eruptions of the skin, *mal perforant*, etc.

CURE OF LICHEN RUBER WITHOUT ARSENIC.—We read in the *Medical and Surgical Reporter*, June 17, 1882, that up to the present time it has been the custom to employ arsenic in the treatment of lichen ruber, and several months were required to obtain a complete cure with this medication.

Unna asserts that he has obtained results much more satisfactory without having recourse to arsenic. The treatment he recommends consist, in frictions with the following ointment, over the affected parts:

℞ Hydrarg. bichlorid.....gr. xv.
Acid. Carbolic. pur.....℥viss.
Ung. Zinc. oxid. benz.....℥xvj.
M. Ft. ung.

In grave cases this ointment should be used night and morning, the patient being afterwards enveloped in woolen coverings. The condition of the mouth during the period this medication is employed should receive great attention, and gargles should be employed to prevent the development of mercurial stomatitis.

To prevent poisoning by carbolic acid the urine should be frequently examined, and as soon as any trace of phenol appears, large quantities of water should be administered.

Very soon after the first friction the painful itching which prevented the patient from sleeping should almost disappear and become supportable.

Under this treatment, out of six patients, two were cured in eight days; two others in fifteen days; and the two last, who had suffered from the disease more than a year, in three months.

SCARLATINOUS ERYTHEMA AFTER QUININE.—Dr. J. W. Kales of Union Springs, N. Y., referring to an article in the *Medical Record* on the above subject says, that malarial fever is very common on the east side of Cayuga Lake and every year brings its full complement of cases. Within the past few weeks he has seen several cases of scarlatinous eruption appear on patients who were attacked with malarial fever, some of whom had, others had not, taken one particle of quinine. So far as his observations went, which during the past three years has extended over many cases, quinine does not appear to cause the erythema mentioned. He thinks the correspondent was fortunate in having so mild a case which was controlled by twenty-three grains of quinine in forty-eight hours. He has frequently given twenty grains quinine in solution, and then had to repeat the amount to "break the chill." It is not common to see the erythema, eruption and pruritus subside without treatment in a short time. There are no cases of scarlatina in that vicinity.

CHROMIDROSIS.—At the London Clinical Society (*Lancet*, July 1882) the committee on chromidrosis reported that one of the cases investigated was proved to be due to malingering, the color being produced by black lead. In another case—a genuine one—the pigment was found to be deposited in fine granules in the epithelium, the sebaceous glands being specially

affected. The committee concluded that chromidrosis has an undoubted existence, but is often simulated. They did not think the pigment was indigo, but did not determine its exact nature.

EXTENSIVE RAVAGES FROM LUPUS.—The following unique case is contributed to the *Archives of Opthalmalogy*, Vol. XI, No. 2, by Dr. Julian J. Chisolm of Baltimore and illustrates the extent to which the frightful ravages of lupus may go without destroying life. The following case, taken from the records of the Presbyterian Eye and Ear Charity Hospital, is the only one in the author's experience, in which the nasal orifices were entirely obliterated, and in which the scarred condition of the entire face indicates that the ulcerated surfaces were not restricted to nose and cheeks, but were only limited by chin and forehead, and extended from ear to ear.

Her sufferings have been intense although in later years so much less to such a degree as to afford comparative relief. There was no history of syphilis made out.

Fig, 2.

Dr. J. J. Chisolm's Case.*

*We are indebted to the courtesy of the author of the article for the loan of the wood-cut here presented.

The following is an abridged history of the case by t patient :

Mrs. S., aged 51, an inhabitant of the country, was a healt girl until 15 years of age, when the disease made its appearai as a small ulcer in the roof of her mouth. It was not painf but rebellious to treatment. At times it would heal up and th again extend its area. Finally it effected a perforation to nasal cavity. For many years it gave no further annoyan In the meantime the girl was married at the age of twenty-o As time advanced she became the mother of eight healthy cl dren.

Four years after marriage the ulcer enlarged in all directi and although active medical treatment was instituted it seem to be to no purpose.

From the anterior nasal orifices it crept out on the face a for some months continued its ravages, eating away the s parts of the nose and spreading widely over the cheeks, until wh ole face, from ear to ear and from forehead to chin, was huge ulcer. Her suffering was intense when suddenly, a eight months of steady progress, and while she was still und going active internal medication, the disease was arrested; ulcerative surface began to clear off and cicatrization co menced. This continued for three years when the scarr finally became complete. She was then twenty-eight. Fr that time there has been no disposition for the ulceration renew; and now, after twenty-three years, and at the age fifty-one, she still calls herself a healthy woman. It was anxi on account of her eyesight that induced her to seek medi advice in Baltimore.

There is an orifice doing the work of mouth and nose, the only facial inlet for food and air, so that while eating th could be no breathing. This opening could be puckered closure by sphincter action. When the interior of the mouth examined, all the palatine tissues were found absent; there not a tooth in either jaw; no free movement to the jaws. H ever, she has been able to feed herself and is by no me emaciated.

On the right side the upper eyelid is effaced amid fro scars, and the lower lid is spread out over the cheek; the l representing its ciliary border, deprived of lashes, is midv between the eye and the mouth. The right cornea has lost

transparency and is covered with a much thickened horny epithelium, through which the iris is not visible. The lachrymal tubes are all closed and no trace of a secretion of tears exists. On the left side, although the lower lid was absorbed in the covering of the cheek, the upper two-thirds of the cornea have remained transparent. There is no visible lachrymal secretion or ducts.

The following has been proposed: to enlarge the oral orifice and establish a nasal opening. There is also good ground for believing that the lids may be replaced in their normal relations to the eyeballs, and that the exposed surfaces, occasioned by the removal, can be covered by skin grafting.

It affords us a great deal of gratification to present this most unique case to our readers, and like Dr. Chisolm, we can but express our hope that it will remain unique, for the sufferings entailed by such ravages must be untold. We are sorry, however that the treatment is not detailed, as it might afford an opportunity of discussing its efficacity. Certainly local treatment would seem to have been indicated, especially when the disease began spreading, but with no data to start from it would be unprofitable to discuss this.

Clinical Reports from Private Practice.

Article XXX.

THREE CASES OF MORPHINE NARCOSIS.—RECOVERY. By J. G. CARPENTER, M. D. of Stanford, Ky.

Case I.—Mrs. M. was attended by an irregular physician and had remittent fever, but was treated for headache and constipation the fever being ignored by the "irregular." Co. Cath. Pills were given for the constipation, and morphine for headache. Patient had averaged ¼ gr. two or three times a day for several days. April 10th, at 5, 7 and 9 o'clock A. M. patient took ¼ gr. morphine. 11 A. M. I saw the case and diagnosed remittent fever with morphine narcosis. Patient was stupid, listless, pupil contracted, pulse 100, temperature 103°, respirations 18, 14, 10 and 8, per minute and stertorous; profuse perspiration, unconsciousness and profound coma rapidly supervened. Atropia Sulph. $\frac{1}{40}$ gr., was given, 12. M. $\frac{1}{80}$ gr. given.; 2 P. M. $\frac{1}{60}$ gr. 7 P. M. $\frac{1}{60}$ gr. 8 P. M. recovery complete.

Case II.—Mr. S. took hypodermically for tetanus ¼ gr. morphine every half hour for two hours; in half an hour from last dose took ½ gr. more hypodermically; in an hour from the last dose administered, morphine narcosis followed. Administered Atropia sulph. $\frac{1}{15}$ gr., in half an hour gave $\frac{1}{80}$ gr., in another half hour gave $\frac{1}{40}$ gr.; in an hour gave $\frac{1}{60}$ gr.; in three hours recovery was complete.

Case III.—Mr. A. T., had been on a spree for a week had drank from two to three pints of whisky per day, ate very little, and slept none. Patient has hypertrophy with dilatation of the right ventricle of the heart. 5 P. M. gave morphine ¼ gr. hypodermically. In an hour patient was asleep in two hours was unconscious and narcotised, breathing stertorous, pulse 120 to 160; temperature normal, respirations 20, 16, 12, 9, copious perspiration; pupils greatly contracted and seemed occluded. Atropia sulph. $\frac{1}{40}$ gr. was given twice hypodermically the first hour; $\frac{1}{80}$ gr. was given twice the second hour, and $\frac{1}{60}$ gr. was given every hour for four hours when recovery was complete.

Book Reviews.

Article XXXI.

1. Aids to Rational Therapeutics. By J. Milner Fothergill, M. D., M. R. C. P. 32mo., pp. 121. (New York: G. P. Putnam's Sons, 1882. St. Louis: Hugh R. Hildreth Printing Co.) Price, paper 25 cents; cloth, 50 cents.

2. Aids to Diagnosis. Part III. What to Ask. By J. Milner Fothergill, M. D., M. R. C. P. 32mo. pp. 66. (New York: G. P. Putnam's Sons, 1881. St. Louis: Hugh R. Hildreth Printing Co.) Price 25 cents.

1. This little pamphlet is designed to aid the student to prescribe in a workman-like manner. The introductory chapter includes how to construct a prescription and the indications for treatment; assimilation and excretion form the subject matter of the next chapter. Vascular depressants are considered in the chapter devoted to body temperatures, inflammation, anæmia, blood poisons, growth and decay, rheumatism, gout and diabetes are considered in succeeding chapters. Some points in practice conclude this opuscule. The whole is liberally interspersed with prescriptions many of which are very valuable, but this general tendency is to prevent the student from thinking for himself and relying too much on ready made recipes.

2. This little book is more valuable than the former and is a valuable guide to one of the most important aids in forming a diagnosis. The directions are clear and plain and we only regret that the author has restricted himself to so few. Examples are given and the book concludes with a chapter on consultations. Although very short this small work is a first-rate guide to many things it leaves unsaid, and by carefully following its precepts, a habit of correcting and rapidly learning the salient points of a case will be acquired and engender a practice of making a diagnosis more rapidly, systematically and correctly.

Supplement to Ziemssen's Cyclopædia of the Practice of Medicine. Edited by George L. Peabody, M. D., 8vo., pp. 844. (New York: William Wood & Co., 1881. St. Louis: St. Louis News Co.)

This is a very valuable addition being, as it were, a report on

progress. It is a digest of the various advances made in medicine since the first appearance of the initial volumes of the Cyclopædia and the contributors are such as claim the first rank among American physicians.

Diseases of the lungs and heart, of course claim the lion's share, but other affections are by no means omitted on this account.

Those who have the Cyclopædia upon their shelves cannot dispense with this volume, which is also of high value to all those wishing to learn what the last few years have done in regard to contributions to medicine.

SENSATION AND PAIN. By CHARLES FAYETTE TAYLOR, M. D. A Lecture delivered before the New York Academy of Science, March 21, 1881; being one of the Public Course for 1880–1881. 24mo., pp. 77. (New York: G. P. Putnam's Sons, 1881. St. Louis: Hugh R. Hildredth Printing Co.) Price 75 cents.

This is a very readable lecture on the subject and arranged in a very good form. There is nothing new advanced and it is rather a general summary of existing views of the best authors than an original essay. The subject is presented in a very clear manner and many interesting facts are given.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A Systematic Treatise on The Theory and Practice of Surgery. By Authors of various Nations. Edited by JOHN ASHURST, JR., M. D. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. I., 8vo., pp. 717. (New York: Wm. Wood & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

In this volume are embraced such subjects as may be regarded as belonging to general surgery. The subjects are many and the authors include such names as Agnew, Ashurst, Delafield, Johnston, Stillé, Stricker, Van Buren, Verneuil, Wales and other names equally well-known. Each article is a monograph of value and independent of the others and the whole collection bears the impress of being cosmopolitan and not restricted to any particular section of country, qualities in the highest degree advantageous to develop independence of thought. The illustrations of this volume are two hundred in number and pretty fair, the typography being unexceptional and of the best for reading.

The part on amputations by the editor is among the most interesting and instructive papers, embracing over one hundred and fifty pages and containing a summary of six hundred and thirty-three cases of hip-joint amputation for all causes. We are sorry, however, to note the absence of several such cases published within our knowledge and which were successful, as they

might tend to somewhat elevate the standard of American surgeons.

Henry M. Lyman of Chicago, has written up Anæsthetics and Anæsthesia which is but an abstract of the volume written by him for Wood's Library of Standard Medical Authors, embracing but about thirty pages.

John H. Brinton handles operative Surgery in General in his usual clear and comprehensive way. Minor surgery is treated of by Dr. Chas. T. Hunter, of Philadelphia, and Plastic surgery by Dr. Christopher Johnston of Baltimore.

Agnew has a paper, on General Principles of Surgical Diagnosis, whose leading characteristic is brevity. Shock by C. W. Mansell-Moullin, of London is equally short. A. Verneuil, of Paris, contributes a paper on the Reciprocal Effects of Constitutional Conditions and Injuries which is preceded by an excellent paper on Scurvy by Surgeon General Wales, of the Navy.

The most important paper and first in the volume is that on the Pathology of Inflammation by S. Stricker; no less so perhaps is Inflammation by William H. Van Buren.

We have not space to mention all the subjects and their authors, but taken together they constitute a series of the great value collected in the smallest possible space and their excellence makes us look forward impatiently to the appearance of the succeeding volumes. Altogether they form a veritable library whose equal could not be purchased outside of those volumes, except at an enormous outlay of money and loss of time in effecting a selection of the proper works.

MARRIAGE AND PARENTAGE AND THE SANITARY AND PHYSIOLOGICAL LAWS FOR THE PRODUCTION OF CHILDREN OF FINER HEALTH AND GREATER ABILITY. By a Physician and Sanitarian. 12mo., pp. 185. (New York: W. L. Holbrook & Co., 1882.)

We are sorry that the author has not appended his name in order that this book might not be attributed to one innocent of its perpetration. The book does not seem to be of a very high standard either scientifically or as a literary production. A few isolated cases are given and the author seeks to establish broad assertions upon such flimsy foundations. It is evidently written for the laity and cannot fail to impress such.

We do not mean to cast a doubt upon the general proposition that sanitation is one of the greatest agents for the conservation and propagation of physical and mental capacity and vigor. But this author dwells upon so many unimportant side issues, that he seems to lose sight of the great object in view; and besides bases all his conclusions upon a lot of mere assumptions. Altogether, we cannot recommend this to the consideration of physicians who care anything for scientific inquiries.

Books and Pamphlets Received.

Article XXXII.

Official Report of the Post-Mortem Examination of Charles J. Guiteau, June 30, 1882. By Z. T. Sewers, M. D., and J. F. Hartigan, M. D., majority of the committee.

Report on Ophthalmology made to the Medical and Chirurgical Faculty of Maryland, Eighty-Fourth Session, April, 1882. By Julian J. Chisolm, M. D., Chairman of Section.

Fourteenth Annual Report of the President of the Inebriates' Home, Fort Hamilton, N. Y., for the year 1881. Also a Statistical Report of Six Hundred Cases of Alcoholic Inebriety treated at the Inebriates' Home, from Nov. 1, 1879, to Jan. 1, 1881. By Lewis D. Mason, M. D. (Fort Hamilton: Printed at the Inebriate's Home, 1882.)

Annual Announcement Memphis Hospital Medical College and Medical Department of Southwestern Baptist University. Session 1882–83.

Thirteenth Annual Announcement and Catalogue of the Woman's Medical College of Ohio, at Cincinnati. Session 1882–83.

Fourth Annual Announcement of the California Medical College (Eclectic) Oakland, Cal. Session 1882–83.

La Lithotritie doit être faite sans Traumatism. Par le Dr. Reliquet. Extrait de la *Gazette des Hôpitaux.* Nos des 13et 16 Mai, 1882.

Thirty-Ninth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the year 1881. Transmitted to the Legislature Jan. 13, 1882. (Albany: Weed, Parsons & Co., 1882.)

Contributions to Practical Gynecology. Illustrated with sixteen wood engravings. By S. James Donaldson, M. D. Part I. Practical Observations upon Uterine Deflexions, Part II. Practical Observations upon Dysmenorrhœa. Read before the New York Medico-Chirurgical Society. 8vo., pp. 134. (New York: Trow's Printing Co., 1882. For sale by J. H. Vail & Co., 21 Astor Place, N. Y.)

On Genital Renovation by Kolpostenotomy and Kolpoecpetasis in Urinary and Fecal Fistules. By Nathan Bozeman, M. D. 8vo., pp. 43. (Reprint from Vol. VI. Gynecological Transactions, 1882.)

Johns Hopkins University—Circulars—Biology.

Excerpts from Opinions of Distinguished Medical Men in this and other countries justifying the Treatment of the late President Garfield, together with a Letter in reply to the Resolution of the Special Committee of the House of Representatives referring to the Expenses consequent upon his Illness and Death. (Washington, D. C.: Gibson Bros., Printers, 1882.)

Second Annual Report of the Astronomer in charge of the Horological and Thermometrical Bureaus in the Observatory of Yale College 1881–1882. Presented to the Director of the Observatory June 15, 1882. By Leonard Waldo. (New Haven: Morehouse and Taylor, Printers, 1882.)

University of the City of New York. Medical Department. Annual Announcement of Lectures and Catalogue. Session 1882–83.

Report on Surgery. By W. O. Roberts, M. D. (Reprinted from the *American Practitioner* for June, 1882.)

Transactions of the Massachusetts Medico-Legal Society, Vol. I., No. 4, 1881. 8vo. pp. 179–208. (Cambridge: Printed at the Riverside Press, 1882.)

Catarrhal Deafness. By Joseph A. White, M. D. (Reprint from the Transactions of the Medical Society of Virginia.)

Tumor of Lachrymal Gland. By Joseph A. White, M. D. (Reprinted from the *Archives of Ophthalmology*, March, 1882.)

The Annual Report of the Richmond Eye, Ear and Throat Infirmary, Richmond, Va. (Richmond: J. W. Ferguson & Son, Printers, 1882.)

Class Work of the Pupils of the Illinois Asylum for Feebleminded Children, for the School Year ending June 30, 1882, together with the Commencement Exercises held in the Chapel of the Asylum, June, 22, 1882.

The Effects of Ante-displacements of the Uterus in Pregnancy and Labor. By Eugene C. Gehrung, M. D. (Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*, July, 1882.)

Note on the Essential Psychic Signs of General Functional Neuratrophia or Neurasthenia. By C. H. Hughes, M. D. (Reprint from the *Alienist and Neurologist*, July, 1882.)

News Items.

Article XXXIII.

There are now six medical journals published in the Japan-ese language in the cities of Japan.

Dr. Mark Ranney, Superintendent of the Iowa Hospital for the Insane, died of an attack of pneumonia, January 13th.

The total annual consumption of quinine throughout the world is computed at two hundred and twenty thousand pounds, of whith one quarter is said to be used in the United States alone.

Prof. Gross has resigned the chair of Surgery in the Jefferson Medical College, of which he has been the incumbent for twenty-six years. His son, Dr. S. W. Gross, has been elected to the chair of Principles of Surgery and Clinical Surgery, and Dr. John S. Brinton to the chair of Practice of Surgery and Clinical Surgery.

The *National Board of Health Bulletin* we understand has been discontinued on account of lack of funds to carry it on any longer. We deeply regret this as the *Bulletin* was a valuable publication concerning mortality reports.

The Medical Chronicle has just appeared in Baltimore and its *raison d'être*, as expressed in its editorial is, that "there is at present no other monthly medical journal published within the limits of Maryland, Delaware and the District of Columbia." It is a twenty-four page journal published at the rate of one dollar per year with Dr. Geo. H. Rohé, of the College of Physicians and Surgeons, as editor.

The discovery of the bacillus of phthisis by Koch seems to have awakened one of our former contributers, Dr. W. S. Newlon, of Oswego, Kan., who writes to say that four years ago, perhaps, he wrote a paper which was not published and in which he claimed to have discovered the cause of tubercles to be cynip-

terous insects, perhaps microscopic, of a similar nature to those producing galls in the oak and other plants. We publish this in justice to our contributer, although we do not wish to be understood as making a claim of priority of the discovery, at this late date.

NOTICE to Graduates of Bellevue Hospital Medical College.—A second decennial revision of the catalogue of Alumni of this college is being prepared for publication, and we are requested to ask that all graduates to send their present address, at once, on a postal-card, to the Historian of the Alumni Association, Bellevue Hospital Medical College, New York, N. Y.

PROFESSOR HERMAN KNAPP, M. D., has accepted the chair of Ophthalmology in the University of the city of New York, made vacant by the resignation of Professor D. B. St. John Roosa.

A SPECIAL meeting of the Alumni Association of the Jefferson Medical College was held on Tuesday, May 30, at the College of Physicians, to consider the endowment of a chair of Pethological Anatomy at the Jefferson College in honor of Prof. S. D. Gross. Pledges amounting to several thousand dollars have been already received for this object.

THE Massachusetts State Pharmaceutical Association was organized on May 17 by a convention called for the purpose, which assembled at Worcester. About two hundred pharmacists were in attendance.

WE have received the initial number of the *American Journal of Stimulants and Narcotics*, a monthly of thirty pages edited by Dr. H. H. Kane, of New York. We hope that it will prove a success and that it will stimulate many to perform good, honest, original work in this field.

WE acknowledge ourselves indebted to the kindness of Dr. Talbot Jones, of St. Paul, and Dr. S. Pollak, of this city, for newspapers containing the report of the late meeting of the American Medical Association.

Dr. J. J. Woodward is reported to be seriously ill in Europe. The continued strain to which he was subjected during the President's illness broke down his nervous system, and soon after the

President's death he went abroad. He is now at Nice, and the reports received of him do not encourage his friends.

THIS spring has been marked by an unusual mortality among the notable men of the medical profession in the United States. Dr. James R. Wood, long identified with the medical profession and with medical teaching in New York city, died after an illness of only four days, from double pneumonia, May 4th, in the sixty-sixth year of his age.

DR. JOSEPH PANCOAST, of the Jefferson Medical College, died at his residence in Philadelphia, from congestion of the lungs, Tuesday, March 9th, at an advanced age. He filled a medical teacher's chair for more than forty years. Dr. Pancoast was one of the oldest and wealthiest citizens of Philadelphia. It is said that his estate is valued at one million dollars.

DR. C. B. WHITE, of New Orleans, late President of the American Public Health Association, died April 22, in the fifty-seventh year of his age. Dr. White was a laborious student, an enthusiastic hygienist, a useful man. He had been in feeble health for a long time and his death was not unexpected, but it has nevertheless caused a vacancy that cannot easily be filled.—[*Atlanta Medical Register.*

DEAN SWIFT'S DISEASE.—Dr. John C. Bucknill, in a late number of *Brain*, pronounces the malady with which the talented and eccentric Dean suffered through life to have been Menière's Disease, a more serious malady afflicting him toward the close of his life. The article, like everything Dr. Bucknill has written for yerrs, is of readable interest, profitable, and instructive. We quote one paragraph, regretting we have not room for more:

"We can diagnose his life-long disease as labyrinthine vertigo, and his insanity as dementia with aphasia; the dementia arising from general decay of the brain from age and disease, the paralysis and aphasia from disease of one particular part of the brain. With all the tortures of the life-long disease from which he suffered, and its obvious effect upon his temper in his later years, it is wonderful that Swift did retain his reason until, in the 74th year of his age, he was in all probability struck down by a new disease in the form of a localized left-side apoplexy or cerebral

softening, which determined the symptoms of his insanity."—[*Alienist and Neurologist.*

CAUSE OF DARK COMPLEXION OF CHICAGO LADIES.—A private letter from a valued correspondent contains the following which is too good to be lost. He writes:

"I see Dr. Byford has greatly improved his work on 'Diseases of Women.' In the first edition, 'nitrate of silver and its substitutes' played a very important part. When I lived in——, a lady friend visited Chicago and spent the summer there. On her return I met her in company of several ladies, who brought up the subject of complexion. The lady was asked if she had noticed the well-known fact that Chicago ladies were less fair than their Eastern sisters, and that Eastern ladies who went to Chicago soon lost their complexion, and if she thought the climate was the cause? The lady replied that she noticed the fact and thought the climate had something to do with it, but she had given the subject considerable attention, and had concluded that the reason in part was due to the fact that Dr. Byford treated female diseases exclusively with nitrate of silver. I judge, therefore, from his last edition, that the complexion of Chicago ladies will now improve." * *—[*Peoria Medical Monthly.*

AT a meeting of Physicians in Troy, Lincoln Co., Mo., for the purpose of passing appropriate resolutions in respect to the death of Dr. Geo. H. Mudd, the following resolutions were unanimously adopted.

WHEREAS: We have received with deep grief the intelligence of the death of our professional brother Dr. Geo. H. Mudd, who in the morning of his life and in the commencement of the realization of his early aspirations has by the inscrutable dispensation of an allwise Providence been removed from our midst Therefore,

Resolved: That in the death of our brother, so young in years the genius of whose youth indicated a future rich in all the achievement of a busy and active life, the medical profession has lost a bright and shining ornament, society a useful member and the County at large an upright and honored citizen.

Resolved: That while we bow in humble submission to the hand that chasteneth we can express our deep regret at the loss which his premature death has brought upon his afflicted rela-

tives and would mingle our sincere sympathies with their sorrows in this bereavement.

Resolved: That a copy of these resolutions be transmitted to the relatives of the deceased and be published in the *Troy Herald and Free Press* and also in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL and *Medical Brief*.

S. R. McKay, M. D., President; T. N. Bragg, M. D., Sec'y.

Troy, Mo., March 25, 1882.

PRELIMINARY NOTES OF AUTOPSY HELD UPON THE BODY OF CHARLES J. GUITEAU.

Drs. Wm. J. Morton and Charles L. Dana, presented the following in the *New York Medical Record*, July 8, 1882:

The post-mortem was held about three-quarters of an hour after death.

GENERAL APPEARANCE OF BODY.—The body was still warm; the limbs flaccid. There was no emaciation. The skin had a marked yellowish tinge. There was a slight but wide-spread ecchymosis upon the left side of the face. When the body was first taken down the eyeballs protruded and the lids were open. A brownish red mark made by the rope, extended three-fourths of the way around the neck, the knot having evidently slipped from the left side to the back. The mark went just above the thyroid cartilage. The penis showed that there had been an erection and emission. There was a tight prepuce, with slight adhesions and abundant smegma. There was no mark of a venereal sore.

The Eyes.—The pupils were slightly and equally dilated, the vitreous cloudy and fundus indistinguishable.

Abdominal Cavity.—Section through the median line showed considerable deposit of fat. The liver was congested, but otherwise normal. The gall-bladder contained a little bile. The spleen was enlarged. Its weight was fifteen ounces. Its tissue appeared normal. The bladder contained about five ounces of urine.

Thoracic Organs.—In opening the thorax a slight venous effusion was found in the right pectoralis major muscle. The heart was firm. A soft clot was being formed in the right ventricle. The left ventricle was empty. The heart ceased action in systole. Weight, ten and three-fourth ounces. A spot of old inflammation existed on left ventricle near the apex. There was a slight atheroma at the beginning of the aorta. There were a few pleuritic adhesions on each side. The pleural cavities were empty. The lungs were slightly congested. A few small, gray bodies resembling miliary tubercles were found

in middle part of the left lung near the outer external surface. Otherwise everything was essentially normal.

The Neck.—There was externally a mark, as has been described. Both the sterno-cleido-mastoid muscles were ruptured; also the thyro-hyoid membrane. The hyoid bone was not broken, nor the laryngeal cartilages. There was no fracture or dislocation of the vertebræ.

HEAD, SKULL AND BRAIN.—The appearance of the face and eyes has been described. There was a scar on the scalp an inch long. It was situated above and behind the left temple at about two-thirds the height and an inch in front of the auriculo-bregmatic line. It extended through the scalp, but there was no corresponding mark of any kind upon the skull.

The Skull.—The most noticeable asymmetry was a slight flattening of the upper and anterior part of the right parietal bone. The flattening ended sharply at the coronal suture. It included a space about half the size of the hand. Other points of asymmetry were not especially noticeable to be studied with the means at our command. The cranial sutures were distinct. There was no visible trace of a frontal suture, the two halves of the frontal bone being thoroughly welded. On the inner surface of the skull the bony prominences were well marked; also the Pacchionian depressions. No abnormalities were discovered. There was a slight prominence corresponding to the flattening of the parietal bone before mentioned. The thickness of the skull was not measured, owing to lack of facilities. An attempt was made to measure its cubic contents but it failed for the same reason. As regards thickness, there was no striking abnormality at least. The relative size of the fossæ could not be accurately determined at the time of autopsy.

Brain Membranes.—The dura mater was quite strongly adherent in places to the inner surface of the skull. Near the trunk of the middle meningeal arteries upon each side the membrane was thickened and strongly adherent to the bone, though it could be stripped clean. It was also adherent near the longitudinal sinus in front. There was at these points, probably, a slight chronic pachymeningitis externa. There was no exudation upon the inner surface of the dura anywhere. The cerebral sinuses contained but little blood. There was rather more than the average amount of Pacchionian granulations distributed along the middle part of the upper surface.

The Arachnoid.—There were well-marked milky opacities of the arachnoid extending over the upper convex surface. These opacities were over the fissures only. In some parts they had a somewhat yellowish look. The subarachnoid space contained no abnormal amount of fluid. The pia mater presented no abnormal appearance. It came off easily from the brain. The blood-vessels of the membranes and brain were not full, and the general

appearance of the brain was anæmic. There was no special examination of the larger vessels.

THE BRAIN.—The weight was forty-nine and a half ounces (measured on a grocer's scales). Its consistence appeared to be normal. Its specific gravity could not be obtained owing to lack of facilities. The measurements of its chords and arcs could not be obtained for the same reason. As regards contour and shape exact studies could not be made. There was no apparent asymmetry of the two hemispheres. The comparative weights of the cerebra and the other parts could not be obtained. The cerebellum was well covered. The occipital lobes were not noticeably blunt or sharp.

The frontal lobes were peculiarly shaped. Looking at them from in front and above, they presented two protruding points from which the surface sloped away in a concave curve. This pointed apex of the lobes with the concavity of the orbital and beginning of the frontal surface was carefully noted by all of us at the first exposure and removal of the brain.

THE LOBES AND CONVOLUTIONS.—Frontal lobes.—Their peculiar shape has been referred to. As regards size they appeared to be well developed.

THE FRONTAL LOBES—LEFT SIDE.—The first frontal fissure was very long. It was broken by a single bridge near the junction of the anterior and middle-thirds. The secondary fissure was well marked, so much so that it seemed almost to form an independent primary fissure. The second frontal fissure was well defined, but interrupted by four small concealed connecting convolutions. It communicated with the first by a cross fissure. It was not confluent with the præcentral fissure.

The præcentral fissure was defined and not confluent. The convex surface of this lobe, as a whole, was marked with an unusual number of cross and other secondary fissures. It was not of a confluent type, but it showed a marked tendency to the four-convolution type.

The orbital surface showed a radiate orbital fissure starting from a single central depression or fissure. There were five radiate fissures from this center. The olfactory fissure showed nothing peculiar.

THE FRONTAL LOBES.—RIGHT SIDE.—The first frontal fissure was well defined, non-confluent, except that at its posterior extremity it communicated with a deep cross fissure. The secondary fissure was a typical one. The second frontal fissure was well defined and non confluent.

Præcentral fissure.—(No notes.) The orbital surface was well fissured. The orbital fissure branched off from a small isolated central convolution in seven different rays. The olfactory fissure was normal. The right frontal lobe was not a confluent type nor four fissured, but had an unusual development of secondary fissures like the left lobe.

THE PARIETAL LOBES.—LEFT SIDE.—Fissure of Sylvius.—The distance of its lower end from the apex of the frontal was not measured; nor the angle it formed with a horizontal plane. In both these respects it appeared to be normal. There was a partial confluence with the first temporal and also with the fissure of Rolando. From the surface it appeared as if the latter fissure passed directly into the Sylvian. On parting the convolutions, however, a connecting convolution was seen. The fissure seemed to be of average length.

The anterior branch was well defined and non-confluent. The fissure of Rolando was well defined and not confluent. The præ- and post-central convolutions as well as the paracentral lobule were large and well developed. The retro-central fissure was well defined and separated from the interparietal by a small concealed connecting convolution.

THE RIGHT SIDE.—The Fissure of Sylvius.—There was no confluence, apparent or real, of this fissure. The anterior branch.—(No notes.) The fissure of Rolando was well defined and non-confluent. It extended slightly into the longitudinal fissure, fissuring the paracentral lobule. The central convolutions, as they lay under the depressed parietal bone, were examined with special care. The præcentral convolution was well developed throughout its whole length. The post-central convolution was well developed up to its upper fourth. Here it became narrow and shrunken.

The paracentral lobule was quite small. On the left side, per contra, this lobule was well developed, while the fissure of Rolando was separated from the longitudinal fissure by a broad convolution. (There was a deficient innervation of the left side of the face.) The retro central was well defined and confluent with the interparietal.

THE LEFT SIDE.—Island of Reil was well covered. Seven straight fissures and eight convolutions were present. The interparietal fissure began at retro-central and ran a well-defined course, ending in the transverse occipital, from which it was separated, however, by a small convolution. It had no complete confluences.

THE RIGHT SIDE.—The island of Reil was well covered and had five straight fissures and six convolutions. The intraparietal fissure began in and was confluent with the retro-central. It was well defined. No abnormal confluences noted.

TEMPERO-SPHENOIDAL LOBES.—LEFT SIDE.—The first temporal fissure was well defined for depth, but was not so long as usual—not running up to the angular gyrus. It was slightly confluent with the fissure of Sylvius. The second temporal fissure was not especially well defined. On the basal surface the inferior temporal fissure was well defined and not confluent. The collateral fissure was well defined and long, extending to the

anterior end of the temporal lobe. The fusiform lobule was smaller on this, the left side, than on the right.

ON THE RIGHT SIDE.—The first temporal fissure was well defined and of normal length, with no confluences. The second temporal fissure.—(No notes.) On the basal surface the inferior temporal fissure was normal. It was incompletely confluent with the collateral fissure, which was well defined but shorter than that on the left side.

THE OCCIPITAL LOBES.—The primary fissures were present in these lobes on both sides and no especial peculiarities were noted. The anterior occipital, or Wernicke's fissure, was present on each side, was well defined and non-confluent. The right transverse fissure was well defined, beginning on the mesal surface and passing out with two small interrupting convolutions. The left transverse fissure was well defined; nothing further noted. Thus, of the three fissures which combine in apes to form the ape-fissure, viz., the second temporal, the anterior occipital (Wernicke's), and the transverse occipital, two were only normally defined; the remaining (the temporal) was not strongly marked.

MESAL SURFACE.—LEFT SIDE.—The calloso-marginal fissure ran its usual course to form the anterior boundary of the præcuneus. It was broken in the last part of the præcuneus by a convolution. Above this fissure was a secondary fissure running parallel to it and ending about opposite the first third of the corpus callosum.

ON THE RIGHT SIDE.—The colloso-marginal fissure was continued on through the præcuneus to the parieto-occipital fissure, from which it was separated by a small convolution. The secondary fissure upon this side was still more developed than on the left and ran back to the anterior boundary of the paracentral lobule. On the whole it would appear (1) that the brain was marked by an unusual number of cross and secondary fissures, especially in the frontal lobes; (2) that it was not of the confluent fissure type; (3) that the convolutions of the two hemispheres were quite asymmetrical.

THE INTERIOR OF THE BRAIN.—The white substance was whiter than usual, and of normal consistency. The gray cortex was somewhat thinner than usual. Eight or nine measurements in different parts gave a thickness varying between one-eighth, one-ninth, one-twelfth, one-sixteenth of an inch. The ventricles were dry, the ependyma normal, the choroid plexus showed nothing noticeable. No spots of hemorrhage or softening were found and no tumor was present.

THE CEREBELLUM.—Nothing peculiar was noted regarding this portion of the brain. The brain was finally cut into various pieces. Portions were distributed for microscopic examinations.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—JUNE, 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	54.0	69 0	18	70.0	88.0
2	57.5	68.0	19	58.0	66.0
3	56.0	64.5	20	57.0	68 0
4	49.0	65.5	21	64.0	89.0
5	50.0	75.5	22	70.0	91.0
6	53.0	80.0	23	71.0	91.5
7	60.0	82.0	24	77.0	95.5
8	64.5	87.5	25	78.0	86.0
9	70.0	89.5	26	73.0	84.0
10	70.5	90.0	27	72.0	92.0
11	70.0	73.0	28	73.0	92.0
12	64.0	72.5	29	74.0	89.5
13	66.0	89.0	30	74.0	87.0
14	74.5	94.0			
15	75.0	91.0			
16	72.5	93.5	Means	66.1	82.9
17	66.0	84.0	Monthly Mean.	74.9	

Quantity of rain, 4.82 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM JUNE 3, 1882, TO JUNE 24, 1882, INCLUSIVE.

Small Pox..... 0	Childbirth..... 1	Convulsions & Trismus Neonatorum 41	Syphilis..... 3
Scarlatina. 29	Inanition, Want of Breast Milk, etc. 8	Hydrocephalus and Tub. Meningitis.11	Apoplexy 6
Pyæmia & Septicæ 1	Alcoholism..... 5	Meningitis & Encephalitis 22	Dis. fem. gen. org.3
Erysipelas 5	Rheumat'm & Gout 2	Other Diseases of the Brain and Nervous System28	Surgical Operation 1
Diphtheria 14	Cancer and Malignant Tumor.... 10	Cirrhosis of Liver and Hepatitis... 4	Deaths by Suicide 7
Membran's Croup. 6	Phthisis & Tuberculosis, Pulmon 59	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 27	Deaths by Accid't 25
Whooping Cough. 4	Bronchitis.. 14	Bright's Disease and Nephritis...10	Deaths by Homicid 2
Ovarian tumor.... 0	Senility 18	Other Diseases of Urin ary Organs. 1	Congen Defor'ty 33
Measles 15	Pneumonia..... 51	Diabetes..... 0	Total Deaths from all Causes.... 635
Typhoid Fever.... 7	Heart Diseases.... 21	Erysipelas 5	Total Zymotic Diseases 207
Cerebro Spinal Fev 5	Other Diseases of Respir'y Organs. 20	Puerperal Fevers.. 3	Total Constitutional Diseases.....115
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers,13	Skin Disease..... 0	Diarrhœal Disea's 84	Total Local Diseases 288
	Marasmus—Tabes Mesenterica and Scrofula 21	Other Zymotic Diseases 5	Total Develop'tal Diseases 52
	Other Const. Dis. 10		Deaths by Viol'ce35
			Unknown 0

CHAS. W. FRANCIS. *Health Commissioner.*

Original Contributions.

ARTICLE XXXIV.

IODOFORM.—ITS USES AND ABUSES, ITS ANTISEPTIC VIRTUES AND ITS POISONOUS EFFECTS DISCUSSED IN THE SURGICAL CONGRESS BERLIN, 1882. BEING A SYNOPSIS OF THE OFFICIAL REPORTS. By LOUIS BAUER, M. D., M. R. C. S., Eng., Prof. of Surgery in the St. Louis College of Physicians and Surgeons.

THE ELEVENTH SURGICAL CONGRESS assembled on May 31st, last at Berlin, and continued its deliberations until the 3rd of June. As on former occasions, the assemblage was numerously attended, comprising many of the leading surgeons, the hardest workers and readiest writers.

Prof. von Langenbeck, though on the eve of retiring from active life, and preparing his Tusculum shared perhaps for the last time in the proceedings. He was obviously the most prominent figure in the congregation, and decidedly the recipient of marked attention and reverence.

Among the many interesting subjects brought under the notice of this congress was that of

IODOFORM,

giving rise to a lively debate. It was Langenbeck himself who set the ball in motion. This fact was sufficient to intensify the already pre-existing interest in the question. A synopsis of the discussion cannot fail to enlist tthe attention of American surgeons.

Von Langenbeck prefaced his subject by the remark: that the danger of iodoform-poisoning was quite sufficient to induce the greatest care, but not sufficient to ignore the use of this most efficacious antiseptic. In spite of due precaution at the University Hospital, some cases had happened which had forced him to trim his sails still more. Acute mania followed the amputation of the breast with excision of the axillary glands and lasted eight weeks. But ten grams had been used in the wound. Two other patients died after the same operation, in whom about fifteen grams of the drug had been introduced. A girl of eleven

years succumbed (excision of a cavernous angioma of the head) and an old man aged seventy-two years, (amputation of the thigh).

He fully agreed with other observers, that iodoform would not allow promiscuous use. In a female twenty-seven years of age, upon whom the exsection of the elbow-joint had been performed, but five grams had been employed. The wound had closed by first intention, without any incident, yet traces of iodoform could be discovered as late as eight weeks after the operation. Fifteen grams were powdered over the wound from amputation of the breast in another case. The wound cicatrized readily and firmly. After four months the scar opened and expelled a few lumps of iodoform.

This sad experience forced him to change his dressings. Ever since he had abstained from introducing the article into wounds. Although he continued using it in the dressings of operation-wounds, no new case of poisoning has happened.

The plan more recently adopted by him is as follows: After the bleeding has been arrested, the wound is irrigated with three and one-half per cent. solution of carbolic acid, and then closed by silk sutures narrowly inserted. The wound is then covered with a strip of crinoline impregnated with iodoform powder. Over that comes a gauze compress, gutta percha paper and cotton wadding gently pressed upon the wound by a calico bandage. If necessary a drainage tube is inserted at the most dependant part, eventually through a slit with the knife. Second dressing in twenty-four hours; drain removed in three or four days, without disturbing covering.

Von Langenbeck assumes that the iodoform atmosphere suffices to protect the wound against sepsis and thus produces first intention without the usual concomitants of the healing process, viz.: pain, rubefaction and swelling of the edges. As soon as the blood collecting in the wound is carried off by drainage, the flaps adhere to the wounded surface with little or no suppuration; scarcely a few drops of semipellucid sanguinolent tenacious fluid escaping. The eminent antiseptic action is elucidated by the following observations:

To every surgeon is known the fact, that if blood is left in the wound or the drainage tube is obstructed, febrile symptoms set in as early as in eight or ten hours with rise in temperature and pulse. As soon as the blood is abstracted, the fever recedes. He cites three cases in which blood collected and eventually

escaped through stitches in an entirely aseptic condition without exciting the usual reactive signs, and without interfering in the least with the first union of the wound. From these observations von Langenbeck infers that, in the so-called *aseptic fever* from blood pent up in a sutured wound, fermentation must precede in order to become pyrogenous, unless its decomposition is effectually prevented.

To the so-called *scab dressings* von Langenbeck ascribes great therapeutic virtues. From its action to prevent inflammation, and to limit the secretion of wounds to a minimun, iodoform commends itself to the "healing below a scab." The wound is first covered with powdered iodoform, next with cotton batting, then with gauze compress, and last with gutta percha paper under gentle compression. This dressing gives rise to the formation of a scab or crust which adheres to the wound until completely cicatrized. (This seems the only exception in which von Langenbeck allows the iodoform brought in direct contact with a wounded surface.) Obviously he restricts this plan to more integumentary flaps and to wounds made by plastic operations. In the latter he has derived inestimable service from it. Thus among others he removed a melanotic nævus occupying the entire upper eyelid and extending to the eyebrow. The operation was quite extensive, including even the tarsus down to the conjunctiva. The rather large wound was dressed as before described, and then closed. In five weeks the scab dropped off. The scar formed was smooth. There was no trace of ektropium.

The rhinoplastic operations in which the flap is taken from the forehead there is always great difficulty in closing the defect. The sutures are apt to tear out if applied tensely. Under the scab dressing such accidents do not happen, besides obviating pain and inflammation of the margins.

Grafting has derived no lasting benefit from iodoform. Pieces of epidermis (Reverdin) or of cutis (Zehender) heal readily to wounded surfaces. The former, however, give rise to cicatrices. The pieces of cutis undergo so early changes that their worth becomes nugatory. First, the ipdermis is raised up in a blister followed by suppuration. Thereupon a shrinkage ensues or the new cutis disappears entirely.

Formerly, the transplantation of integument invariably failed if it had been bereft of adipose tissue. If nasal defects were thus covered by a flap from the arm (Tagliocozzi) and care-

fully sutured, adhesion seemed to take place. The flap would exhibit a red color and a proper temperature. On the fourth or fifth day there would be a sudden change; the flaps becoming detached, discolored and undermined by pus.

In order to test the efficacy of iodoform in the like cases, von Langenbeck made a trial in the following case: Ektropium of lower lip from extensive burns; the teeth and gum exposed, inability of closing the mouth; the lip drawn down to the lower margin of the lower jaw and attached to this bone. On the 18th of January last, loosened the lip so as to touch the upper one; scab dressing. On the 28th, the wound was found in a state of granulation. On the 30th, an appropriate piece of cutis is excised from the arm inclusive of its adipose layer and placed so as to cover the granulating surface, and held in that position by close silk sutures. The defect was 8 cm. in one and 5 cm. in another direction. The margins covered with a layer of iodoform, the whole with iodoform batting. On the fifth day dressing removed; the margins were united by a scab. The flap is vascularized and warm, no secretion below the flap. The same dressing. This condition remained until the 15th of Feb. Then discoloration of the flap. On the 22nd of Feb. a brown color, changing gradually into black. Normal temperature throughout. On the 4th of March, that is, thirty-four days after the operation a *thin layer* is detached from the cutis, below there is a smooth surface. The lip retains its normal position.

Mikulicz, the talented and diligent assistant of Bilroth, took a firm stand in favor of iodoform. At the introduction of a new remedy, especially of so powerful and useful a drug as iodoform, a lively enthusiasm is readily created, and much more is expected from its employment than there is reason for. The unavoidable disappointment is at once set up as a proof against its virtues. A few cases of this sort lead as speedily to reaction equally unreasonable.

In carefully analyzing the fatal cases ascribed to the toxic action of iodoform, it would be seen that most of them are based upon obvious exaggeration and hasty conclusion. Prof. Koenig had designated this remedy as an indispensable agent in modern surgery, and none had studied its character and tried it more assiduously at the bedside than he.

That iodoform was a most poisonous substance, was no recent discovery; that absorbed in wounds it could lead to

violent and dangerous condition, he had himself observed, and timely warned of its careless use. But this feature belonged to a large class of remedies in daily requirement. Its recognition as an eventual poison had led to greater precaution, and it was for this reason that since no fatal cases had occurred in Billroth's clinic although in constant employment.

Schede and Kuester had taken an extreme position in this question. The former had already admitted that some of his observations had left room for doubt. The increase of temperature by iodoform maintained by the latter had found no support in the observation of others.

As yet we know only the disturbances in the brain and heart as undeniable effects of iodoform. The speaker feels persuaded that acute sepsis, especially septic peritonitis has not rarely been mistaken for iodoform intoxication. He refers to a case of that description which had lately happened in Vienna.

The patient had been free of fever eleven days; the wound had healed per primam; restlessness, frequent pulse, want of appetite however prevailed during that period. There was no rigor, and the tongue moist. A light icterus set in shortly before death. The post mortem revealed pelvic cellulitis and numerous abscesses in the lungs.

He would not deny, that the number of genuine fatal cases was indeed large, but in most of them, iodoform had been used in reckless quantities and in an objectionable manner.

Prof. Czerny had called attention to the fact that large wounded surfaces are susceptible of absorbing iodoform in large quantities, whereas ten grams could be introduced into a small wound with impunity. The same dose may lead to turbulent symptoms in a large wound.

Again it is of vital importance whether the crystals or the powder is selected and whether iodoform is applied in substance or as impregnated gauze. Some authors commend to rub the drug upon the wound. We consider this mode very objectionable and dangerous. Even firm compression may do harm in favoring absorption.

The condition of the wound should be duly regarded. Behring is quoted as authority that the fresh and still bleeding wounds more readily decompose the iodoform and the iodine is more easily absorbed. Amputation wounds preclude the use of that agent in substance. Nobody should be surprised when

Kuester lost a patient after he had used thirty-five to forty grams of iodoform in the peritoneal cavity. In Thiersch's clinic two cases died. Fifty to 300 grams had been used. So in the case of Henry 100 to 200 grams He could not deny that other agents had been discovered, for which the same beneficial effects were claimed. For the present, he would stand by iodoform the therapeutical virtues of which he had used and found reliable.

Von Bergmann (Wuerzburg) has not observed a single case of iodoform intoxication because he has not used it, and because he has loyally adhered to Listerism. But he feels persuaded that many cases are supposed and proclaimed as poisoning by iodoform which have no connection at all with it.

He disinfects hands and the field of operation with bichlorate of mercury (Koch) and for the balance he trusts to phenic acid.

Kuester refutes the strictures so freely made by Miculicz and insists that his case had been designated by himself as dubious. He could but repeat that the subject was yet shrouded in a good deal of uncertainty if not confused. The toxic fever from iodoform was something essentially different from the so-called aseptic wound fever. The former appeared later (on 3rd or 4th day earliest) and did not subside in a day or two; the latter promptly follows the injury and subides with its cause. It was a well known fact that goitre can be relieved by iodine, but it is likewise known that the persistent use of it gives rise to turbulent fever terminating fatally. The experiments before the Congress a few years ago to that effect, were in his opinion incontrovertible.

Schede (Hamburg) takes exception against the caustic remarks of Mikulicz. His observations on iodoform poisoning thus far published were not exhaustive. A more explicit article on the subject was in contemplation.

His early views had been verified, that "the stopping of recent and large wounds with iodoform was an indefensible practice." For the present, it seemed to be impossible to determine the maximum. The greatest number of fatal cases had happened with large wounds, yet disturbances of the intellect had occurred from small doses. This experience had determined him to discontinue its use entirely. The dangers of iodoform were however not limited to individual patients, but extended to the general hygienic condition of the hospital. Similar observations had been made by Koecher, Podrazky, Kuester, Gueterbock and

others. Schede had in his hospital, Fredrichshain, under more than 10,000 surgical cases twenty-six with erysipelas with two deaths. In the general hospital at Hamburg there were more. In 1880, eleven cases with erysipelas and three deaths. After the introduction of iodoform the number rose to eleven in six months and two deaths from this cause. From July to December, 1881, under the exclusive use of iodoform, twenty-three cases of erysipelas occurred, with nine deaths, and in the following month of January (1882) five cases happened with four deaths. That is a total of thirty-nine in thirteen months.

The enormous mortality demonstrated the virulence of the attacks. No abortive remedy made any impression; they advanced with great rapidity to metastatic pyæmia which since 1873 had not been observed in the hospital until iodoform was introduced.

In summing up, Schede stated that a number of deaths had to be ascribed to iodoform dressing which might have been obviated by other means; further, a goodly number of mental aberrations, while he is at a loss to account for the preservation of a single life by the employment of iodoform. He had therefore no courage to continue his experiments with this deleterious drug, the less so as he has recognized in the sublimate ($Hg. Cl_2$) a more effective and rather more commodious agent.

Bardeleben has not had the opportunity to extend his observation far enough to proffer an opinion. He prefers sublimate; against erysipelas was it likewise powerless. He entertained serious doubt that iodoform should be an agent provoking erysipelas. The latter occurred in private practice. Sometimes it came without recognizable cause and spread in every direction in order to disappear again.

P. Gueterbock (Berlin) raise sdoubts whether hospital hygiene is at all affected by iodoform, warns however to admit unauthenticated reports as relevent facts.

Rosenbach (Göttingen) states, that iodoform is powerless in destroying some species of bacteria, as for instance, those of splenic fever.

Article XXXV.

The Spray Producer is the Best Means of Making Applications to the Superior Portion of the Respiratory Tract. By Thos. F. Rumbold, M. D., of St. Louis.

Preliminary to a statement of the facts that are intended to make it apparent that this assertion is correct, I wish to make a few remarks on a subject that is so closely allied to the subject of this paper that it will assist in its elucidation. The purpose of this apparent digression, is to point out as clearly as possible, but of course very briefly, the location of the complaint that is to be treated, its pathological condition, and the indications that must be fulfilled to make a local treatment effective.

To properly decide upon the best means for making local applications for the relief of special symptoms, we must be sure that we know the location of the complaint, as well as the location of the symptions, for sometimes the locations of the symptoms is not the location of the disease; when such is the case it is of the utmost importance to know it. The globus hystericus, and the pain in the toes and knee does not more surely proclaim a distant, originating affection, than do many of the symptoms of the larynx proclaim a diseased condition in the pharyngo-nasal and nasal cavities; and I may add, that many of the symptoms of the larynx would be as unsuccessfully treated by applying a remedy to it, as it would be to apply arnica to a little finger that is benumbed from the result of a blow on the elbow, or a poultice to a knee or foot for relief to a coxalgia. I do not wish to consume so much time as it would require to give all my reasons for believing that catarrhal inflammation of the larynx is rarely idiopathic, is nearly always secondary to and a sequence of long continued naso-pharyngeal catarrh. Daily observation, during at least fifteen years, has taught me that the tickling and the sensation of mucus, when first experienced in the larynx, is really caused by an inflammation located in the pharyngo-nasal cavity. The results of both inspection and treatment prove this to be correct. The pharyngeal mirror, if turned toward a larynx

of this kind, may show a little inflammation but *no* mucus, yet the sensation of mucus will be there, the patient will insist that it is there. If, now, the reflector be turned toward the pharyngo-nasal cavity, *there*, a higher grade of inflammation will be seen, and there too an accumulation of tough adhering muco-purulent secretion will be found. The patient will not only not complain of the accumulation in this locality, but he will be unconscious of its being there, even should he have had to gag and retch, the previous morning, in his endeavors to relieve himself of its presence. If this adhering mass is removed by mild means, and a soothing application be made to the parts, the symptoms in the larynx *will at once subside*, nor will they return until after the re-accumulation of the secretion.

There are two other incidents, that are corroboratory of this and they may be noticed while treating patients afflicted in this way; one is, that upon the aplication of a spray to the pharyngo-nasal cavity, from an instrument that throws its stream vertically, four-fifths of the patients thus treated will voluntarily exclaim "that (meaning the medicament) went right straight to the sore place in my throat," at the same time they will place their fingers over the larynx. They do this notwithstanding that not a particle of fluid was sent into or went into the larynx, all of it going in an opposite direction, that is *up* from the throat and into the pharyngo-nasal cavity. The other incident is, that should a remedy, instead of being thrown up behind the soft palate, be first thrown into the larynx, the location complained of by the patient, little or no relief will follow it. This I have noticed very frequently.

Very many times I have made an application of a mild remedy to the anterior nares, that caused a cough of a more or less severe character, although when the same remedy was thrown into the larynx and inhaled into the lungs, no cough ensued. I have also had patients in whom the irritation caused by air alone, thrown with considerable force into the nasal passages, produced the symptoms, showing plainly that the larynx can be affected by even slightly irritating the nasal passages. To show the close relation of the ear to the pharynx and larynx, I will add that I have had quite a number of patients who commenced to cough immediately on the introduction of an ear speculum into the auditory canal, and one who, for a period of

nearly two years, lost his voice for a moment, simply upon traction of the pinna of his ear.

These facts suffice, for the present, to show the importance of treating the pharyngo-nasal cavity, for almost every affection that appears to be in the larynx. My practice, for many years, (which is reasonably large, for a private practice) in treating most all disabilities of the larynx and vocal cords, has led me to entertain these views.

I will now allude, briefly, to certain invariable and characteristic actions of these passages when they are in a highly sensitive condition. Afterward I will make mention of the condition of their mucous surfaces, then state the objects to be attained by the treatment. This done, the work to be accomplished will be placed before us, and we will then be able to judge, whether or not the syray producer can perform this work better than it can be done by other means.

The characteristic actions alluded to are the well known and uniform tendency of the pharyngo-nasal cavity, pharynx and larynx to instantly become completely closed on their being touched by a foreign body, even if no very great force is employed. The tendency of these cavities to become, by spasmodic contraction, momentarily obliterated, as it were, on even slight irritation, must be kept constantly in mind, when the choice of the kind of means for making local applications to their inflamed and sensitive surfaces is proposed.

It is self-evident that the kind of means that will occasion the least irritation, that is, will cause the least tendency to the production of this contraction, is the kind that should be *recommended* before all others, while the kind of means that does, however carefully employed, always give rise to spasmodic contractions, should, most certainly, be *avoided*, if possible.

During the spasmodic closure of either of these cavities, the mucous surface cannot be properly treated, for fully one half, if not two-thirds, of it is folded upon itself, nor can these folds be opened out, unless an instrument, having a diameter fully equal to the pharyngeal or laryngeal passages, be made to enter with such a degree of force that it is sure to do so much injury, that the benefit from the application will be annulled.

The conclusion that must be formed is this: the means for making applications to these passages, that cause closure of the pharyngo-nasal cavity, the pharynx and larynx is certain to

be unsuccessful, while the means that does not cause closure of these passages will afford an opportunity of applying a remedy to their entire surface, and that too without causing the least irritation, an advantage of paramount importance, when we are treating a highly sensitive and irritated surface, especially when this is the very pathological condition that we are endeavoring to allay.

The condition of the mucous membrane, upon which it is proposed to operate, should assist in determining the kind of means with which to make applications to its surface. The condition of the membrane will depend upon the age of the patient, the acuteness or chronicity of the complaint, and whether or not there is a solution of continuity of its surface. The mucous membrane of some patients, will be very hyperæmic and sensitive, with not the least perceptible coating of secretion upon it; while in that of others, whose disease is of long duration, the whole surface will be thinly coated with a fluid muco-purulent secretion. As the inflammation grows in age, the secretion will be found to be thicker and will adhere more tenaceously to the surface. With those who are still more chronicaly affected, these secretions will be found in a semi-solid condition and may adhere so tenaceously that they cannot be removed even by the aid of a brush. Should the secretion be found in an inspissated condition this will make its removal and the treatment of the surface covered by it still more difficult.

This leads us to the consideration of the object to be attained by the employment of means for making local applications.

At the present stage of medical science there may be circumstances or cases in which the physician must, to decrease a local inflammation or check an ulceration, increase, for the time being, the local irritation, but we all know that this kind of practice is not truly scientific; we all know that to decrease inflammation we should do so by decreasing the irritation, and to arrest ulceration, by re-establishing the the circulation of the vital fluid in the immediate neighborhood of the part that is undergoing molecular destruction. We all know that if we cannot accomplish this to the letter, we should at least approach it as nearly as possible.

Experience, going through a period of nearly twenty years, has proven, times almost without number, THAT THAT TREATMENT OF AN INFLAMED AND ULCERATED MUCOUS MEMBRANE IS THE

MOST SUCCESSFUL, THE NEARER THE APPROACH IS MADE TO AN EFFECTIVE NON-IRRITATING METHOD OF APPLYING AN EFFECTIVE NON-IRRITATING REMEDY.

For this reason the endeavor is made to make every application so that it will cause little or no irritation. This object attained, a very great step towards a successful treatment of this complaint is made.

A second object that must be attained, is to remove all the morbid secretions from the inflamed surface. If muco-purulent secretion is allowed to remain on an inflamed and ever heated mucous membrane, it will soon acquire an acrid property and this acridity will aggravate the disease. It will require but little persuasion to make an observing practitioner believe that every part of the diseased surface of a catarrhal mucous membrane should be cleansed, and that those portions that are not cleansed, are not benefited by any application placed on top of the thick adhering catarrhal secretions. Merely thoroughly, but mildly removing the accumulated secretions from the nasal passages of children, will almost always cure their catarrhal complaints, whether they be in the nose, the throat, the ears or all three. Cleanse the nose, then the throat and ear complaints of this class of patients will soon disappear.

The third object to be attained, is, that every portion of the diseased membrane, that can by any possible means be reached, should have the remedy applied to it. This is so self evident that to be admitted needs but to be stated. For this reason no more will be said in urging the correctness of this very important indication of treatment.

This brings us to the consideration of the kind of means to be employed to accomplish all of these indications of treatment. While making these applications our aim is to lessen the inflammation; certainly the irritation of the membrane should not be increased, by anything done it. The work to be accomplished is this: All of the morbid secretions should be removed and the remedies should be thoroughly yet mildly applied to the whole inflamed surface.

Inhalations may be made to pass through all the diseased cavities, but they cannot be relied upon to cleanse the surface of the morbid secretion. Everyone at all conversant with the objective symptoms of a chronically inflamed mucous membrane, knows that it is covered with tenaceous secretion. Although

the removal of this secretion is not easily accomplished, yet it is of the greatest importance that it should be removed, as on this depends the success of the treatment. Very little observation is required to perceive that the inhalation of a vapor, either warm or cold, cannot cleanse surfaces that are covered by a secretion that adheres so tenaceously that it can scarcely be removed by a brush.

We must not forget that there is in the immediate neighborhood of the inflamed parts, mucous membrane that is but slightly if any at all affected, and that this healthy surface—which is fully half of the entire surface of the cavity—is but thinly covered with healthy mucus, just sufficient to keep it moistened. We know that the vapor of many articles of the materia medica may pass through this thin coating of mucus, and produce marked effect on the healthy membrane under it, and we also know that the thick, viscid coating of muco-purulent secretion covering a diseased surface will prevent even strong vapors from acting upon the membrane.

[TO BE CONTINUED.]

Article XXXVI.

Therapeutic Uses of Hydrate of Chloral.* By Joseph E. Harris, M. D. of Danville, Mo.

Gentlemen:—It is rather embarrassing to a young man to get up before a body of educated medical men of age and experience, and attempt to read a medical essay. But as it has been made my duty to do so, I cheerfully submit, and willingly contribute what I can. The subject assigned me is "The Therapeutic Uses of Hydrate of Chloral." I trust you will pardon the imperfections and deficiencies in this, my first effort in this cause. As I am young and inexperienced—it having been less than a year since I graduated—what I have written on this subject is almost entirely taken from different authors, and what I have to say myself forms but a very small part of this paper.

Hydrate of chloral, though it has been known for about forty years, had not attracted much attention from the profession until 1869, when it was brought before the Medical Society of Berlin, by Dr. Otto Leibreich of that city, who regarded it as an anæsthetic agent. In his experiments with this substance, Leibreich found that hydrate of chloral, when brought in contact with an alkali, was decomposed and resulted in pure chloroform and a formiate of the alkali used. Upon this fact, he based his theory of the action of chloral, supposing the alkalinity of blood decomposed the chloral forming chloroform, and thought that its effects on the system were due this substance; hence, it was an anæsthetic. Leibreich's theory, although a very plausible and rational one, has met with many objections, and in at least some instances positively disproven.

In regard to this, Bartholow says:

1st. The effects of Chloral differ from those of a corresponding quantity of chloroform.

2nd. After the administration of chloral, there is no elimination of chloroform by the breath or urine.

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*Read before the Linton District Medical Society, May 2nd, 1882.

3d. Chloral is more decidedly hypnotic and less anæsthetic than chloroform.

4th. Crystals of chloral have been recognized in the blood, and the products of the decomposition of chloral have been discovered in the urine.

Chloral is not really an anæsthetic; it can only produce anæsthesia by completely suspending the functions of the cerebrum, and when carried to such an extent as this, it is apt to be at the peril of the patient's life. It is more properly an hypnotic. The primary effect of an ordinary dose of chloral, is a stage excitement, which, however, is of very short duration and is suddenly followed by complete sopor, which latter effect generally follows within five minutes after administration. The sleep produced by chloral is remarkably like natural sleep. The pupil is a little contracted, the pulse unaltered or a little slower and respiration is unaffected. The sleep is calm, quiet and refreshing. The patient is easily aroused and may take food and again quickly relapses into a quiet peaceful slumber. Chloral is free from the unpleasant effects which generally attend the administration of morphia. As a rule no headache, nausea or constipation follows the administration of chloral. The quantity required to produce sleep without narcotism varies in different subjects from ten to forty grains, and the duration of its effects varies from two to eight or ten hours. When a toxic dose is taken, complete coma ensues and the pulse becomes quick and rapid, respirations slow and shallow and the patient dies from paralysis of the respiratory and cardiac nervous centers. After death from chloral, the meninges of the brain and spinal cord, and the lungs are found congested, and the right cavities of the heart are distended. A considerable diminution of temperature follows the administration of chloral, which is a result of the diminished arterial pressure and weakened action of the heart, thereby reducing tissue metamorphosis.

Care should be exercised in giving this remedy, as upon different subjects it often has such different effects. It is contraindicated in any degeneration of the heart and vessels, or in disease of the lungs.

Hydrate of chloral is said to be an excellent remedy in seasickness. Given in doses of 15 to 20 grains every four hours, with rest in the recumbent posture, is said to be the best means of combatting this disorder. If we accept the theory that sea-

sickness is a disorder caused by a sense of insecurity—a feeling of apprehension or fear—it would seem that chloral would be a very appropriate therapeutic agent, as by its sedative influence on the nervous system, its tendency would be to allay the excitement, and in a measure remove the cause of sickness.

Chloral has been beneficial in the treatment of the nausea and vomiting of pregnancy. The hypodermic use of chloral is now said to be the most prompt and efficient method of treating cholera and cholera morbus. When the patient is approaching a state of collapse, the skin cold and covered with a cold perspiration, the breath and tongue are cold, and there is cramping of the muscles, the patient is not infrequently wrested, as it were, from the jaws of death and placed in a position of comfort and safety by the hypodermic injection of chloral. It is said to act better when combined with morphia in the following proportions: Hydrate Chloral ʒiii. Sulph. Morphia grs. iv. Water ℥j. Of this inject fifteen to thirty minims, which may be repeated in half an hour.

By virtue of its power to diminish tissue metamorphosis, and the consequent reduction of the body temperature, chloral would seemingly be indicated in inflammations, eruptive fevers, etc., especially when attended by adynamic symptoms, the patient restless and delirious, tossing from one side of the bed to the other; or when there exists a high arterial pressure.

It should be prescribed with the greatest caution, if at all, when there is ischæmia of the arterial system. It should not be prescribed for instance in pneumonitis in which there is bound to be a great disturbance of the pulmonary circulation.

Its widest range as a therapeutic agent is found in nervous disorders. In simple insomnia due to excitement, anxiety or mental fatigue, there is no remedy so admirably adapted to its relief as chloral. In doses of eight or ten grains at bed-time, repeated in ten minutes if sleep is produced by the first dose, it is generally followed by the happiest results, the patient quickly falling into a calm, quiet sleep, awaking in the morning greatly refreshed. In several instances with patients suffering from sick-headache, after producing free emesis, the patients were still extremely nervous and unable to sleep, I have prescribed chloral in doses of about ten grains repeated in ten or fifteen minutes if necessary. With this treatment I have never failed to procure for the patient a good night's rest, after which he

would arise in the morning feeling comparatively well. In cases of this sort, I think it is a good plan to combine the chloral with the bromide of potassium. The chloral for its immediate effects and for the rapidity of its action; the bromide, though slow in action, has a more permanent effect upon the brain.

In delirium tremens there is no remedy more universally successful in producing quietude than chloral. It is best suited, however, to attacks following a simple debauch, and is not so useful in old burnt out drunkards; sometimes serving only to make them more wild and nervous. It is useful in quieting the insane. In puerperal mania and hysterical mania it is very effectual. In puerperal eclampsia chloral is a valuable remedy often when given between the paroxysms, preventing, or at least modifying another paroxysm. In infantile convulsions it is not less useful. In tetanus we have no more efficient therapeutic agent than chloral. Chloral has also been used a great deal in paroxysms of difficult respiration, particularly spasmodic asthma; in which affection, it has acquired quite a reputation. In whooping cough and spasm of the glottis chloral is very beneficial. In fact chloral is indicated in every purely spasmodic affection. By virtue of its influence over the vasomotor system, it is indicated whenever there is high arterial pressure. In the anæmic variety of migraine, in which there is a tetanoid contraction of the arterioles of one side of the brain, chloral gives prompt relief, restoring the equilibrium of the cerebral circulation, by relieving the spasm of the muscular coat of the arteries. In obstetrical practice, chloral is often very useful in the first stage of labor. By Playfair and others it is considered the best thing that can be given to relieve the annoying, troublesome "nagging" pains of the first stage, making the contractions, though less frequent, more regular; and if not stronger they are more effective by reason of less resistance of other organs, which, ordinarily, are excited by the pain, and thus the contraction is not deprived of part of its effect. It calms nervous excitement, promotes dilatation of the os and reduces the suffering to its minimum. It should be given to the extent of producing drowsiness, causing the patient to sleep between the contractions, at the beginning of which she will arouse, generally, but will only be conscious of slight pain and will not be very materially disturbed by it, or may not

be aroused at all. Good results have been reported from the use of chloral in cerebro-spinal meningitis. It would seem to be a very appropriate remedy in this disease, and is indicated for a number of reasons. It relieves the severe pain either by removing congestion or as an anæsthetic or by both. It produces quietude of the muscular system, causes abundant and refreshing sleep, reduces temperature, does not produce constipation nor any disorder of the stomach or secretions.

Chloral is a decided antiseptic. A solution is of service in the treatment of old foul ulcers, arresting fermentation and promoting healthy granulations. Chloral is now used to a considerable extent in the treatment of inflammation of the mucous surface as a topical remedy. A solution of a ʒss to ℥i of water makes an excellent gargle for simple pharyngitis. It is not less effectual as a collyrium in simple conjunctivitis, but this requires a weaker solution—about grs. v to ℥i water. A solution of this strength is also a good injection for gonorrhœa. To recapitulate: Hydrate of chloral is a nervous sedative, carminative, hypnotic, an antispasmodic, antiseptic, antiphlogistic, and we may say anæsthetic.

Translations.

Article XXXVII.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Symptoms of Rabies.—M. Denis-Dumont lately had a case of rabies which he claims to have cured, and to make sure that the disease was rabies submits the following as characteristics of the disease which do not permit a doubt as to the true nature of the affection.

1. The bite of a rabid dog.
2. The ordinary period of incubation after inocculation; thirty-six days.
3. Prodromic agitation; aimless comings and goings.
4. The peculiar malaise with pruritus, which commencing at the bitten part precedes the first attack without being renewed.
5. Intense thirst, acute pain in the throat, a spasmodic contraction at each effort at deglutition.
6. Horror for liquids in general, more pronounced for certain ones.
7. Attacks immediately produced by certain excitants, notably by the noise produced by striking the teeth together.
8. The almost instantaneous regaining of consciousness after the attack.
9. The convulsions do not affect one side more than the other.
10. The tendency to bite and the patient biting himself.
11. The sensation of a very heavy weight on the chest, with anxiety.
12. Hoarse voice, the result no doubt of the contraction of the muscles of the larynx, a kind of barking accompanying the beginning of some of the attacks.
13. The curious and characteristic modifications undergone by the wound.

The treatment which effected a cure consisted of bromide of potassium in large doses, 3 grams, codein, chloral and hypodermic injections of nitrate of pilocarpine.—[*Bulletin de l'Acad. de Méd.*

CONTAGION OF MEASLES.—The following are the conclusions of a thesis on this subject by Dr. A. Béclère:

1. Contagion is the only mode of development of measles.

2. Measles is contagious from the beginning of the period of invasion and during the eruption; it does not seem to be so after this and the duration of the contagious period does not seem to exceed eight to ten days.

3. The contagium of measles, of unknown nature, is contained in the products of secretion of the respiratory mucous membrane; it remains to be demonstrated that it exists elsewhere particularly in the products of cutaneous desquamation.

4. The contagium of measles is diffusible in the atmosphere, but its diffusion is very limited; it cannot get beyond a distance of a few metres.

5. The contagium of measles is not very tenacious; out of the organism which has produced it, it rapidly loses its noxious properties; it does not seem capable of retaining them beyond a few hours.

6. The contagium of measles is very rarely transported by persons or objects, beyond the cases except in a very short time at a very small distance.

7. The contagium of measles does not persist in the building occupied by the patient.

8. There is hardly any immunity against measles except that furnished by a former attack; and even this is not absolute.

9. The time between the moment of penetration of the contagium and the beginning of the eruption has a duration remarkably fixed and varying but within very narrow limits. It is oftenest on the thirteenth to the fifteenth day from infection, exceptionally a day earlier or one or two days later, that the eruption appears.

10. The existence in an individual of a general disease, an eruptive fever, in a word of a pathological state, not only does not confer even temporary immunity from the contagion of measles, but even does not change the duration of the period of incubation.—[*France Médicale.*

TREATMENT OF PURULENT OPHTHALMIA OF THE NEW-BORN.—Prof. Galezowski's treatment consists simply in passing over the conjunctiva, morning and evening, a brush dipped in a two and a half per cent. solution of nitrate of silver. Immediately after this a second brush is passed over the conjunctivæ, with a saturated solution of the chloride of sodium, thus neutralizing the excess of nitrate of silver. Such is the procedure to be employed without attention to the abundance of suppuration, the intensity of the chemosis and the more or less bad state of the cornea. Since six years, M. Galezowski has thus treated at the clinic more than 400 cases of purulent ophthalmia of the new-born and not a single eye was lost. The disease under this treatment will require five to six weeks for a complete cure. When suppuration has diminished and chemosis has disappeared, the application need only be made once a day, then every other day, twice a week, and finally cease entirely.—[*Progrès Médical.*

PLUM PIT IN THE EAR FOR THIRTY-THREE YEARS.—A. Ducan gives the history of a case of a man who presented himself at the clinic of Dr. E. J. Moure. He has only suffered inconvenience during the last few days, his wife trying to clean his ear with an ear-spoon. At the age of six he introduced the stone of a plum in his ear and fearing a scolding never mentioned it. In the course of time he completely forgot its presence.

An injection of warm water very easily dislodged the foreign body and revealed that the meatus and tympanic membrane were perfectly normal.

The reflections of the author are, in substance, a warning not to blindly grope and probe for unknown bodies in the ear. An otoscopic examination is always to be made and the foreign body, if present, be carefully extracted, otherwise grave complications may arise. In conclusion he states that injections of warm water are superior to all other means of extraction and should always be given the preference and other means be resorted to only in case of failure with this.—[*Rev. Mens. de Lar. d'Ot. et de Rhin.*

PRIMARY EPITHELIOMA OF THE SPLEEN.—Dr. Eugene Gaucher says that a peculiar hypertrophy of the spleen, primary and idiopathic, exists which he proposes to call primary epithelioma of the spleen from its histological character.

The clinical characteristics are: a considerable hypertrophy, progressive, slow in its march, accompanied by

acute pains, various phenomena of compression, hemmorrhages (epistaxis, purpura and hemorrhagic gingivitis), intense at times and dependent upon secondary hypertrophy of the liver, without leukæmia, without intermittent fever or ascites and with a tendency to a special cachexia.

The anatomicul characters are: a very voluminous spleen, uniformly and regularly developed, of smooth and shining aspect, form and color about normal, hard and sclerosed.

The histological changes are: 1. Complete substitution for the proper elements of the spleen of large epithelial cells, irregularly rounded or polyhedral, furnished with a nucleus, and held between the normal fibres of the hyperplasied splenic stroma; 2. interstitial hemorrhages; 3. complete destruction of the Malpighian corpuscles; 4. partial disappearance of the blood-vessels.—[*Gazette des Hôpitaux.*

SPORADIC CRETINISM.—M. Ball lately reported the following case: A man aged 31, whose genital organs are well developed whose height and external aspect give him the appearance of a child. Three brothers were regularly developed till the age of eleven months. By means of bad treatment, inanition, without want of proper attention, he had convulsions which lasted, without interruption, for three months. The disease stopped, but the evolution of the child had received a decided shock.

His height is 1.103 metres (3 ft. 6½ in.); dentition incomplete; he is not completely idiotic, understands what he is told but expresses himself with difficulty, could never learn to read, knows persons and can distinguish between good and bad actions. Has memory, is of a mild disposition. Despite the development of the genital organs, he seems to have no sexual instinct; the face is beardless, the skin wrinkled; the face is without expression, nose flattened, eyes wide apart, mouth very large, lips thick and the lower one pendulous.

The head is large, irregular, retreating forehead, the abdomen prominent, chest normal; the special senses and general sensibility are well preserved.

The arrest of development was caused by a brain disease (prolonged convulsions). This is without doubt a case of sporadic cretinism, without heredity, and manifested after inadequate attention, no doubt, because the soil was propitious.

The subject appears capable of a certain agree of intellectual culture and has already profited of the lessons given him at the clinic. Besides, according to an English author, the idiots of cities are, physiologically, of a much less degraded type than those of the country.—[*Paris Médical.*

Article XXXVIII.

FROM THE PORTUGUESE.

Study of the Etiology and Nature of Beriberi. By Dr. A. Pacifico Pereira. Translated from the *Gazeta Medica da Bahia*, for the Journal. By Joseph Workman, M. D., Toronto, Canada.

(concluded.)

The etiology of the disease is, as we see, fully in accord with the method of interpreting its pathology, and the symptomatology, the pathological anatomy and histology afford new confirmation of the theory which we present. In the autopsies made by us, the histological examination of the muscles of the lower extremities, of the respiratory muscles, and of the heart, showed in several cases very manifest degeneration of the muscular fibre. The histological examination of the muscles made by Dr. Simmons, in Yokohama, were most conclusive. With the aid of the arpeo (hook) he was able to abstract small portions of the muscular texture of the members of beriberics while alive, and he verified the existence of a more or less advanced degree of muscular degeneration always accompanying paralysis, however slight. In some cases, there was merely incipient degeneration with simple indistinctness of the striæ; in others these had completely disappeared in an almost homogeneous web of fine granulations.

In this way, Dr. Simmons was able to accompany the alteration of muscular fibre in the different phases of the disease from insipient metamorphosis up to the complete degeneration with atrophy of the textural elements.

The symtomatology is no less in accord with these results of anatomo-pathologic examination. "From simple diminution of force, which proceeds through debility and fatigue, to complete paralysis, shown by complete absence of movement, which however, is rare, there is an infinitude of degrees observed in all beriberics," as has been said by the illustrious Dr. Costa Alvaren-

ga, when treating of the symtomatology of the muscular apparatus in beriberi.

The symptomatology and the pathological anatomy show then a correlation existing between the paralysis of movement in beriberics, and the dystrophia of muscular textures which may reach to complete atrophia with incurable paralysis in some groups of muscles, persisting as results of the disease, notwithstanding the reestablishment of the patients with complete disappearance of all the other symptoms.

We have seen this part of the persistence of paralysis and atrophy of the muscles, especially in the group of the extensors of the fingers, in a patient who recovered from beriberi of a mixed form, in a very grave state departing for Europe; he remained more than three years in France and Portugal; the symptoms gradually and successively disappeared, until he acquired vigorous health, but with persistent paralysis and atrophy of the extensors of the fingers, notwithstanding adequate applications made by noted specialists.

It may be objected to the theory we have endeavored to demonstrate, on the pathology of the disease, that the dystrophia of the muscular texture is the effect, and not the causes of the paralysis, but in response to this objection, it suffices to remember that the muscular element is not affected by beriberic dystrophia in the voluntary muscles alone, since, especially in the extremities, from the very commencement, the primary symptoms of paresis, more or less accentuated, are manifested, in the heart itself, despite its incessant force, there is, in beriberi, a gradual and slow dystrophia, which produces, in a more advanced phase, a fatty degeneration of the cardiac muscular fibre, as frequently demonstrated in autopsies.

The physio-pathology of beriberi affords a better explanation of this fact. It is sufficient to compare it with that which is observed in other diseases, which though of different nature, have with it a point of contact, the alteration of the globular part of the blood, and the consequent deficiency in the provision of oxygen in the intimate weavings of the textures.

"The muscle of the heart," says the illustrious S. Coupland, "which is, of all the muscles, that which requires the most constant and definite supply of oxygen for its regeneration, because its incessant action denotes a continual metamorphosis, is particularly subject to suffer. Being probably nourished in two

ways, by the blood which circulates through its cavities and by the arterial provision in its walls, is there not sufficient reason that this muscular organ should be particularly signalized by degeneration when the blood is deficient in the elements that transport oxygen Hence, the occurrence of fatty degeneration which is recognized as the most constant and notable effect of a grave and prolonged anemia. Of seventy-six cases of anemia, idiopathic, in which post-mortem examinations were made it was declared that the heart had degenerated in sixty-four, and in some of these extremely; in six other cases no mention is made of its state; and only in six is it stated that it was normal."

Coupland and Green record cases in which the fatty degeneration had as its most important factor an acute anemia, consequent on great loss of blood. In Green's case the fatty metamorphosis was notable, not only in the muscular texture of the heart, but also in the voluntary muscles.

It is a fact that the consequences of the alteration which renders the globules of the blood unsuitable to their physiological destiny, are also manifested in different textures of the body, in cases of impoverishment of the blood, in which the alteration is more in the quantity than in the quality of its elements. It is thus that fatty degenerations are observed not only in the heart, where it is most frequent, but also in the liver, the kidneys and the intestinal and gastric glands, in cases of profound and fatal anemia.

In beriberi, in which anoxemia has incontestably the most important role, this degeneration has been verified by autopsy, in the most important glandular organs as the liver and kidneys; and not only in the voluntary muscles of the extremities, but likewise in the respiratory muscles, and in the cardiac muscle, it has been noted for a long time past, by a great many pathologists who have studied beriberi, as I have already observed, when treating of the pathological anatomy of the disease.

It is this affection of the cardiac musculature that explains many of the symptoms of beriberi, the appearance and disappearance of abnormal sounds, which lead to the supposition of *organic lesion* in the common acceptation, and the frequent manner of the close of the disease in asystole.

A very distinguished specialist in heart affections, Dr. Stokes, of Dublin, wrote as follows: "It is in the vital and anatomical

conditions of the muscular fibre that the key to cardiac pathology is to be found."

It is on the effect of the energy, or of the enfeeblement of the muscular texture of the heart, the state of integrity or of alteration of its anatomical elements, that, in many instances, depend all the disorders in the functional play of the impelling center of the circulation. In beriberi, the etiology, physio-pathology, and the anatomo-pathologic data of the disease, induce the belief, that the contractile force of the heart is particularly affected, that the organ becomes gradually enfeebled by the slow dystrophia which the texture of the myocordium suffers, and which comes, in the last phase of the march, to constitute the fatty degeneration met with so frequently in those who succumb. Affected in its motor potency by the weakening of the muscular fibres, which constitute it, the impelling organ of the circulation is the seat of the notable symptoms, the rhythmical alterations which reveal a failure of equilibrium in the regular mechanism of its functions, and the abnormal sounds, naturally due to differences of intravascular and cardiac pressure, which are of the very essence of the disease, and to the nutritive alteration of the muscular texture of the organ, especially of its papillary muscles which, from degeneration of fibres, lose the capacity of functioning normally, and of maintaining in regular tension the valvular auriculo-ventricular apparatus. Autopsies have shown that these muscles are the most profoundly affected in the cardiac degeneration, and physio-pathology gives us the reason of the fact.

"In order to comprehend," say Wilk and Moxon, (Path. Anatomy) "the reason why the internal parts of the heart most especially suffer, we should remember that they are distant from the coronary arteries, and are subdivided into muscular columns, a condition which limits the direction of the vascular supply to the extremities of the insertion of the columns, so that we perceive that these internal parts obtain nutrition with comparatively greater difficulty, which explains the greater frequency of fatty degeneration in these parts, and its limited seat in them."

A distinguished practitioner has before sought to explain the systolic sounds heard in beriberics, by degeneration of the muscular fibres of the heart. Dr. Schutte, in the parallel which he has drawn between beriberi and pernicious anemia, (*Archives de Medicine Navale*, Aug., 1879), writes thus: "It is beyond doubt

that the sounds are of anemic nature. That which Eichrist says regarding the conditions favoring the production of the characteristic sounds in progressive pernicious anemia, is entirely applicable to the sound of the souffle in beriberi, since the fatty degeneration of the muscular fibres is almost constant in this disease. In general the cardiac valves are normal."

"The sounds of souffle in beriberi are probably due to the circumstance, that the muscular mass representing the principal role—if not the exclusive one—in the formation of the systolic tone, finds itself no longer in a state of conservation, by its contraction, the periodicity of vibration indispensable to the formation of a pure sound. It produces, therefore, by systole, only irregular vibrations, which have as their effect the noise called souffle."

Article XXXIX.

FROM THE ITALIAN.

Charcot on Spinal Localizations. Paris 1878-1880.) Review by the Milan Hospital Gazette. [Translated for the Journal.] From *Il Pisani, Sicilian Gazette.* By Joseph Workman, M. D., Toronto, Canada.

[concluded.]

The intensity of the hypothetic irritation of the gangliar elements will, however, be variably shown, according to the case and the subjects, and also to the extent of the regions in which they may be propagated. Hence, permanent contracture, from consecutive sclerosis of the pyramidal fasciculi, is a contingent, and not a necessary, pathognomonic symptoms. Ordinarily it exists in all cases of sclerosis of the pyramidal fasciculi; but it may very well happen that it does not exist even when there is a lateral sclerosis, as for example, in the case of hysteric contracture it is manifested when no lateral sclerosis is present. In short, permanent contracture is not a function of sclerosis of the pyramidal fasciculus.

The author finally shows that the pre-existing theories of the cessation of the influence of certain parts of the encephalon on the spinal cord, and of encephalits, and of irritation of the nervous fibres which continue unaltered in the midst of the sclerosed parts, are altogether insufficient to furnish an explanation of the contractures of hemiplegics.

Another clinical feature, previously described by Ollivier (d'Angers) in cases of imperfect recovery from transverse, myelitis, has recently been designated by Seguin under the title of tetanoid paraplegia, and by Erb under that of spasmodic gait (spasticher-Gang), believed to correspond, in cases in which it occurs isolated, to a systematic special protopathic affection of of the medulla spinalis, called by Erb spasmodic paralysis, depending, according to him, on a symmetric sclerosis of the lateral fasciculi; but Charcot holds that the pathological

anatomy of this affection has yet to be made out. Clinically it may be distinguished from disseminated patchy sclerosis, because in this, the symptoms of spasmodic paraplegia are always, in some part of its course, accompanied by other symptoms which may vary *ad infinitum*, according to the cases or the cerebral symptoms, as nystagmus, amaurosis, embarrassed utterance, intellectual disturbances, and vertigoes, or spinal symptoms, as contractures, muscular atrophy, and symptoms of tabes.

Spasmodic tabes dorsalis occurs in subjects of thirty to forty years of age, especially in men, without any appreciable cause. There is no disturbance of sensibility, the disease is produced slowly and progressively, exhibiting itself in the outset in a simple heaviness of the legs, afterwards in a true paresis accompanied by rigidity; finally the gait assumes the spasmodic character, but sometimes not until after many years. Each foot—thus Ollivier has described the spasmodic gait—is raised from the ground with much difficulty, and under the force which the patient employs to raise it fully, and to extend it forward, the trunk is brought erect and then thrown backwards, as if to balance the weight on the lower limb, which is agitated by an involuntary tremor before being again stayed on the ground. In these movements of progression, the point of the foot is at one time lowered and it shuffles more or less on the ground before leaving it, and again it is briskly raised at the same time that the foot is projected outward. I have seen some patient who could not walk a step, although leaning upon a staff, without twisting backwards the trunk and the head, so that their figure had some resemblance to that determined by tetanus." A variety described by Erb will be more common than the type of Ollivier. In it the patient who generally helps himself with two crutches or staves, literally walks on the points of the feet, because of the exaggerated contraction of the gastrocnemii. His body stoops forward and represents an inclined plane, so that every moment he is in danger of falling on his face. The tendon reflexes are naturally much exaggerated, whilst the cutaneous conserve their normal character.

When the disease arises in infancy, it merits special mention. (Erb, Seeligmüller, Stromeyer). The rigidity often commences to be produced shortly after birth, without being accompanied by any cerebral accidents. The nurse discovers that the limbs

are rigid, and it very often is difficult to dress the child, it cannot command the feet nor move a step; three or four years have to be waited before it is seen to raise itself, with difficulty, on its feet, by support of some article of furniture.

The manner in which children at this age, being upheld under the arms, succeed in making a few paces, is very characteristic. The hips are slightly flexed; the knees are in adduction, one crowding the other with such force that the legs and the feet are embarrassed by crossing. The plantar flexion of both feet, which are resting on the toes, determines a forward inclination of the body, that still more obstructs the gait. The exaggeration of the tendon reflexes, the absence of muscular atrophy, and the normal excitability of the muscles, neatly distinguish this morbid state from spinal infantile paralysis. In the further course of the disease the upper extremities are taken with rigidity; the forearm becomes fixed in semi-flexion, and the fingers are turned into the palm of the hand. Here also, up to the present time pathological anatomy is mute, and as respects the pathogenesis, we can only think that as at the epoch in which disease commenced, the lateral fasciculus is in the full way to development, this condition, under certain influences, may not be unfavorable to the production of an inflammatory lesion.

Other systemic lesions interest the grey substance of the medulla spinalis, and precisely the anterior cornua already distinguished by physiologists from the prosterior and from the grey central substance, which serve for transmission of the sensitive impressions, whilst the first are destined exclusively for transmission of motor impulses. These lesions are called anterior polymyelites, systemic, acute, or chronic, according to their course, and are characterized by the muscles of animal life being not only paralyzed, but also seized by trophic lesions more or less profound, which are exhibited by special electric reactions, and by the absence of any modification, unless accidental and transitory, of the sensibility, and by the divers spinal reflexes being, chiefly in acute or sub-acute forms, either diminished or completely abolished. The sphincter muscles of the bladder, rectum, etc., remain intact. From the co-existing muscular trophic lesion, these systemic affections have been called protopathic spinal amyotrophies, to distinguish them from the deuteropathic, in which the lesion of the anterior cornua is

but secondary, or accidental, and the trophic alteration of the muscles is hence found clinically intermixed with the other symptoms.

There are anterior polymelites acute (infantile spinal paralysis, spinal paralysis of adults); there are sub-acute (the sub-acute general spinal anterior of Duchenne), and there is the chronic polymyelitis (the progressive muscular atrophy of Aran and Duchenne, described before by Cruveilhier, called also protopathic progressive spinal amyotrophy).

The constancy of muscular atrophy in the lesions of the anterior cornua is another proof of the intimate solidarity existing between the motor cells, the motor nerve and the muscular fibre, organs that may be considered as three consecutive elements of one and the same system (the neuro-muscular system).

The knowledge of these systemic elementary diseases may be applied in the explanation of diseases more complex, not systemic, but distributed in a diffuse and unequal manner in the nervous cord. Among these may be cited, in the acute form, central myelitis, or polymyelitis chronic; in the chronic form periependymal sclerosis, hypertrophic spinal meningitis, and patchy sclerosis, all diseases which in their course present, along with the other symptoms, and at some time in their course, the symptom of progressive amyatrophy; whilst the lateral amyatrophic sclerosis may be considered as a true systemic lesion with combined elements.

Proceedings of Medical Societies.

Article XL.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, May 27, 1882.

Fibro-Cystic Tumor of the Uterus.

Dr. Coles.—I have here a specimen that I would like to present; a specimen of a fibro-cystic tumor of the uterus, which I removed two weeks ago by abdominal section. The patient from which I removed this tumor is some thirty-eight years of age, the mother of four children. She has had five children, the youngest being born dead last October, and this tumor coexisted with the pregnancy. After the patient was delivered the abdomen was still as large as a woman in pregnancy at term. The child born weighed eleven and a half pounds. The physician in attendance thought she must be pregnant with twins. He passed his hand into the uterus and found that it was empty, only delivering the afterbirth which had been retained. The opinion seemed to prevail then that there might be an extra-uterine pregnancy; I was called to see the patient, and after making an examination, was pretty well convinced that it was a tumor, and gave my opinion that it was either a fibro-cystic tumor of the uterus, or else a semisolid tumor of the ovary. She recovered well from her confinement, and I have seen her from time to time since, from last October until in April last, when she notified me that she would be here in May to be operated upon. We told her that the risk in taking out this tumor was very great, but she insisted upon the operation.

After consultation in this city, after she came on, we told her that it would be a hazardous operation, and were rather disposed to discourage her; but she was determined to have the operation performed, and said that the fact that she had a tumor of that kind in her almost ran her crazy, and that she was determined

to have it taken out at the risk of her life; and so on last Sunday week I operated upon her. The tumor was found to be fibrocystic, a neoplasm of the uterus. The tumor attained its present dimensions during her last pregnancy, which ended last October; the abdomen enlarged very rapidly and she was much distended of course at that time, and at the time she was operated upon the dimensions of the abdomen were about the size of an eight months pregnant woman. The tumor was not very movable. On moving it the uterus moved slowly, showing that there was either a short pedicle or else it was attached to the uterus, which organ was found retroverted and not very much enlarged on introducing the sound. When she was etherized we passed a male catheter into the bladder, and found that this organ extended up pretty high. On opening the abdomen we found the tumor apparently adhering in front and on each side of the pelvis. On enlarging the abdominal opening to about ten inches, the tumor presented the appearance of a gravid uterus, the anterior fold of the broad ligament on each side was stretched up like wings over the side of the growth, while the bladder was also carried high up upon its anterior face; the tumor was connected with the anterior face of the fundus of the uterus a little to the left side, and occupied the whole of the cavity of the cul de sac between the uterus and the base of the bladder. This was a very ugly condition of things. There were two courses to be pursued under the circumstances, and I had been advised by Dr. Gregory, who had seen the case, to be prepared to extirpate the uterus. It is the kind of a case in which the uterus has been extirpated quite frequently; but such were the extensive adhesions of the bladder, so extensively was this organ attached above and in front, that if the uterus had been extirpated, it would have been necessary to dissect off the bladder in such a way as to have left a large raw surface inside the abdominal cavity; so I determined that I would enucleate the growth and spare the uterus. I took the scissors and clipped into the tunic of the tumor and peeled it off towards the base. There was a network of large blood vessels ramifying the capsule in every direction. By means of forceps which were applied to the largest bleeding vessels we secured them as rapidly as possible. In this way all adhesions were peeled off until we got down to its insertion in the uterus, there we passed in a Peaslee needle and a double ligature and tied it as we would the stump of an ovarian tumor, after which

the growth was cut away. The ragged edges of the sac left after tearing off the capsule and removing the tumor were trimmed off as close as possible to adjacent parts of the pelvis and base of the bladder, tying all the arteries thus cut. We would have used the cautery but for the fact of the large bladder surface exposed, we were afraid to cauterize it for fear of producing sloughing into that organ.

The patient was in a profound state of collapse at the time the operation was completed, and for thirty-six hours after the operation she had no pulse that could be counted at all. We kept her all the time surrounded with bottles of hot water, and at the end of thirty-six hours I saw some faint reaction, and as soon as I found that reaction was setting in I commenced sucking the blood through the drainage tube, which had been left in, by means of a gum tube attached to a rubber syringe; the blood which came away being dark and almost pure. The cavity, on the third day, was washed with a mixture of water with a little Labarraque's solution, and this was continued three or four times a day. On the sixth day the drainage tube was taken out. The patient had some slight itching on the third day, but with that exception she has apparently recovered without any extraordinary symptoms. She is now doing well. She is free from fever and has been for some days; she is able to sit up in bed and is cheerful. The tumor when it was taken out weighed ten pounds.

DR. LUTZ.—Was there much suppuration?

DR. COLES.—No, there was no suppuration at all.

DR. LUTZ.—Did no adhesions form in the peritoneal cavity?

DR. COLES.—No adhesions proper.

DR. POLLAK.—Where did the bloodvessels come from?

DR. COLES.—All along wherever the peritoneum was attached to the body of the tumor there were bloodvessels; the broad ligaments were very much enlarged.

DR. MONTGOMERY.—I have been very much edified and interested in the communication of Dr. Coles. I think it was an exceedingly fortunate operation. I am not generally in favor of heroic surgery, but I believe in a case of this kind we can do a great deal of good. I have no doubt in the world that the Doctor saved the lady's life. The tumor was large and growing

rapidly, and in a few months she would propably have died from it. The operation has been exceedingly successful. The largeness of the tumor, the large number of bloodvessels surrounding it and the adhesions to the bladder, rendered it a very serious operation. I think the Doctor is to be congratulated on his success; it was certainly a very successful operation. I remember thirty-five years ago, that Dr. Lasars, a very fine and fearless surgeon of Edinburgh, who was at that time, with one exception, the only man who had performed the operation of tying the arteria innominata successfully, attempted to take a tumor from the abdomen of a woman, and after opening the abdominal cavity he found such a net-work of bloodvessels that he couldn't go on with the operation and was obliged to sew up abdomen again. I really congratulate Dr. Coles, and I think the society is under obligations to him for the report of the case.

DR. HURT.—It appears from the history of this operation that this tumor was not attached to the uterus by anything like a pedicle, and the thought would naturally arise whether or not it could be called a uterine fibroid? I have no doubt that it is myself, and I think that we can account for the fact of its being without a pedicle by assuming that possibly the fibroid commenced in the uterine wall, and by the natural process of contraction and expansion the uterus eliminated the fibroid towards the outer surface when it became encysted under the peritoneum. I don't know that I am going to be sustained by those who are, perhaps, better informed in regard to the subject of uterine fibroids, in this assumption, but it seems to me from the reading I have had, and what little knowledge I have gathered up in regard to these fibroid growths, that we must admit that now and then fibroids become detached from the uterus, although the early history would indicate that it was a uterine fibroid.

DR. POLLAK.—I would like to inquire of the Doctor where the bloodvessels came from; from the peritoneum or where?

DR. COLES.—There are three varieties of uterine fibroids: the submucous fibroid, the intramural fibroid, and the superitoneal fibroid. The submucous fibroid is one that is formed very little beneath the mucous membrane, that lines the cavity of the uterus. The intramural is one that is incorporated within the uterus, in the muscular portion of the uterus. The superitoneal

fibroid is one which originates in the muscular tissue of the uterine wall at the outer portion, and in intimate contact with the peritoneum, or the free surface of the uterus. The natural tendency of the tumor is to grow in the direction in which there is the least resistence, it raises the peritoneum up with it, and it grows from the same bloodvessels which nourish the uterus. In a tumor so large as this, its blood supply would come not only from the uterus, but from all of its connections. Fibro-cystic tumors such as this are very rare; there are only a few successful removals.

DR. DUDLEY.—How long was this tumor growing?

DR. COLES.—I will state again that this lady was delivered on the 26th of October, and after the delivery she was as large as ordinarily in pregnancy; this was her first intimation of a tumor. She told me that she had hour glass contractions, or at least that during the confinement with the last two children the delivery of the afterbirth had been retarded, and I suspect that this tumor has been present for some time; but probably attained most of its present growth during the last pregnancy; it has not grown much since. In consequence of its having grown so rapidly, the bloodvessels were of course considerably hypertrophied.

DR. LUTZ.—Of course, the success which attended this operation demonstrates that the method which was pursued in removing the tumor and ligaturing arteries was a correct one, yet one of the principle objects in abdominal surgery is to prevent the escape into the peritoneal cavity of anything that may possibly undergo decomposition, and you can readily imagine the danger that the peritoneum is exposed to, by clipping the capsule in the manner in which Dr. Coles very successfully did it; because I cannot understand how, when this capsule removed and the coronary incission made around the tumor, the escape of blood into the peritoneal cavity could very well be prevented. I want to make a suggestion and I will illustrate it by a diagram. This shows in an exagerated degree, the manner in which the tumor was pulled out, and the incission that was made. You remember when we enucleate a fatty tumor, it is our habit to cut down through the center of the tumor into the substance of, through the capsule and thus enucleate it from the

central incision; now it occurred to me that we might operate in this way. Let this represent the first incision, we clip with the scissors and pass a needle with a double ligature under the bloodvessel, and the bloodvessel to be cut could be thus ligated before being cut.

DR. COLES.—The enucleation in this case was entirely extra-abdominal, the tumor having already been delivered.

DR. HOLLAND.—In this connection I wish to refer to a case that I have at present. About six months ago I had a lady call upon me, and upon examination I found that the womb was fixed, that it was low down in the pelvis, and somewhat retroverted. Furthermore, upon close examination I detected a small tumor on the right side of the uterus. I have had the pleasure of watching this case for six months, and where there was a small tumor in the beginning, there is now a tumor, I presume as large as my two fists; it is quite prominent. This stricture of the rectum is about three and a half inches up the rectum. She has had a diarrhœa or mucous discharge. I cannot detect anything of a cancerous nature. I can just reach the stricture with my finger. I have dilated it several times and relieved her for the time. She is to be in the city soon and I intend to dilate the womb and make further search as regards the nature of the tumor. Now I just mention this case, and I would like to have the opinion of any one as to the case. Of course the stricture is a serious complication. The tumor is now growing rapidly; during the last three months it has grown very rapidly; it has grown four times as large as it was. She has borne one child.

An Unusual Train of Nervous Symptoms Resulting from Sexual Excess. By H. Fairbrother, M. D.

J. F., æt. thirty-six, for two years a widower, was married about the first of January last, to a German woman, young and buxom. On the first of March he came to me complaining of vertigo, unsteadiness of gait and occasional shooting pains in some of the larger bones. I prescribed for malaria; but afterwards, in thinking of the case, and remembering his marital relations, I was inclined to attribute his symtoms to another cause. In about a week he returned, not at all improved, and

stating that it was often with the greatest difficulty that he resisted the tendency to fall over forward upon his face while following his plow in the field. I then proceeded to make inquiry into his matrimonial habits and elicited the information, that his sexual embraces numbered from eight to ten per week, occurring once every evening, and two or three times during the week in the morning. Of course, this amount could be borne in many cases, with no bad results; but this patient, about a year before, had undergone a severe attack of pneumonia, in which one lung was severely damaged and propably also, his sexual power. I prescribed a tonic and advised continence. He took the tonic very freely but the continence very sparingly, only desisting for a period of two days when he returned to his acts of benevolence; not from any great amount of desire on his part, according to his story; but in response to the repeated and pressing invitations of his wife. She laughed at his incapacity, rallied him about his old age, and deplored her condition of being a wife, with so little prospect of ever being a mother. By this sort of provoking language and conduct, the unfortunate man was goaded forward to a degree of indulgence far beyond his capacity to perform or endure; so that when I was called to see him he was found in a state of complete collapse. He had suffered a severe chill and was then in a high fever which was followed by profuse perspiration. He informed me that two days previous he had a similar chill and fever, that his vertigo and general feebleness were such that he could scarcely walk across the room, and that his most desperate efforts at the sexual act were now all a dismal failure. I prescribed some quinine and gave definite orders for them to observe absolute continence for a period of one month, and that they might be able to follow this order, I directed that they should have separate beds, and be sure to keep them. Two weeks afterward I was again called to this patient and found him in a similar condition of nervous prostration and collapse. My advice with regard to their sleeping habits had been followed for a period of ten days, during which he had continued to improve, but upon resuming his marital rites, the first act was followed by a severe chill and fever. Upon the second day after this he had another chill, and so much did these attacks resemble the intermittent fevers to which he was subject, that the quinine treatment was renewed. For two weeks these severe and exhaustive exacerbations continued to

recur every second or third day, notwithstanding several drachms of quinine had been administered, together with various other antiperiodic drugs. Such was the severity and persistence of these attacks, that his recovery became a question. He was despondent beyond measure, had lost all hope and interest in life and seemed to contemplate death with entire satisfaction. One leading and peculiar symptom in this case, were the terrific pains in the bones suffered during these times of chill; so severe and racking were these pains as to often cause the loudest cries of agony. Opium would produce temporary quiet, but seemed to be followed by an increased amount of prostration.

In speaking of this case to Dr. Jennings, of East St. Louis, he suggested that the free use of iodide of potassium be tried. This was prescribed and appeared to be followed by the happiest results; at least the patient began immediately to improve, and this improvement steadily continued until he was free from every unfavorable symptom. After beginning the iodide he had but one chill and that was accompanied by very little pain in the bones. He is now in very fair health, being able to work every day on the farm, but his sexual acts, which are performed but once a week, are invariably followed by vertigo and prostration.

DR. MONTGOMERY.—This is a very interesting paper, Mr. President, but I think if I were the physician I would pay more attention to the lady than to the man. I would prescribe large doses of bromide of potassium and extract of conium. For the gentleman himself I would give phosphide of zinc, phosphorus, strychnine and quinine, and I think there would be an improvement in his condition.

DR. LUTZ.—I have a case under my care that somewhat resembles the case reported by Dr. Fairbrother. A gentleman who has been a patient of mine for a number of years, was married some time in the latter part of the winter, to a girl from the country, and he brought her with him to my office. He wanted my advice about a cough, that is how he introduced the matter; he subsequently told his wife to tell me the story, which briefly narrated is this: This young man was twenty-nine years of age, and had been married ten days at the time he came to my office, and that he had indulged in sexual intercourse as often as five times in a night. His wife told me that on that morning, after sexual congress, he fainted, and she thought he was going to die.

She also told me that one time during their courtship, while he was caressing her he fell in a fit at her side in the same manner.

I gave him bromide of potassium and ergot; as a tonic I also gave him strychnia and iron and instructed him to abstain from sexual intercourse. He abstained for some time, and I subsequently allowed him the Lutherian quantity—twice a week.

DR. FORD.—I would like to ask Dr. Fairbrother if there was any rise of temperature after these attacks?

DR. FAIRBROTHER.—Yes, sir.

DR. FORD.—These are very interesting cases, Mr. President. I am at a loss to explain all these irregular attacks, unless it is on the theory that they are attacks of urethral fever. I am inclined to believe from the statement of the case that they are attacks of urethral fever. We know that they come on after an irritation of the urethra which is not necessarily pyæmic in its character, although sometimes so induced. It is sometimes purely nervous in its character and there is always a nervous element attached to it. It may be that the patient will not have a rise of temperature. I am inclined to think that a frequent use of the canal, turgescence caused by repeated acts of venery, constant hyperæmia maintained by the whole genital organs and especially the whole urethral tract, may cause urethral fever. We have all the conditions necessary to cause it: constant irritation of the urethra; more or less constant turgescence, and occasional excitement. These attacks sometimes occur from passing the catheter, even without laceration. Then again, they may indicate subprostatic disease. I wouldn't be surprised if there had been previous trouble of the urethral passages.

DR. WESSELER.—In order that we may not think that it is only the men who get exhausted, I will relate a case. An old lady who lives in my neighborhood told me that there was something wrong with her daughter; that she would get in such a condition at night they thought she was going to die, and her son-in-law brought her daughter home in order that she might be convinced that her daughter was going to die. They slept one night in the house, and sure enough after intercourse she became exhausted and had one of these epileptiform seizures, as I consider it, and the lady became alarmed and brought her daughter to me to get a prescription for her. I told her that

she might bring her husband with her, and I took him into my confidence and asked him how he did. He said that everything was all right and that all of a sudden she would become unconscious, and then he would get frightened. I gave her valerianate of zinc and some iron and she improved. I gave the husband strict instrutions not to indulge in any beer at night, not to eat quite so much meat, and not to indulge in so much sexual intercourse. The old lady was in the office yesterday and didn't mention anything about it, so I suppose she is better.

DR. JOHNSTON.—The case reported by my friend on the left, involves a train of nervous excitement or exhaustion that requires the highest physiological consideration; also as physicians, we are often asked the question, I have been asked frequently, how often it is safe for them to indulge the act of coition, and before I give my advice I examine the young man, notice his temperament and physical organism, and also his nervous system; if I find him to be a young man of the nervo-sanguineous temperament I would tell him, you may indulge as often as you will. This week there was an old gentleman who has grown children, in my office, and that subject was brought up in relation to his son, and he told me when he was married for the first five or six months, he cohabited from five to seven times every night. I asked if he was much exhausted, and he said not very much; was he much affected in the mind? not very much. I knew a man in fifty-four, and I believe that man cohabited on an average of six or seven times a night with different women. He was one of the most muscular men in St. Louis at the time. We know the capacity of sheep and goats. What in one man would excite a train of nervous symptoms, in another would be the normal condition. In this matter from my standpoint, we must judge a man by his temperament and physique. Patients dying of consumption sometimes have a great desire to cohabit with persons of the opposite sex. I recollect being told by a physician, that he was attending a lady who was in the last stage of consumption, and she said, doctor, I have the greatest desire to cohabit with my husband; do you think that it would exhaust me? With regard to Dr. Ford's position, I will say, it may be right, but I am inclined to think it was the result of nervous exhaustion from excessive cohabitation, and that the trouble had its seat in the brain or spinal cord.

Dr. Radcliff found that neuralgia depends upon nervous exhaustion and not a hyperæmia or excessive excitement of the mucous membrane of the urethra.

DR. WILLIAMS.—I have a case similar to this, which I will mention briefly. Last summer a lady from south-west Missouri called to see me on account of her blindness; she was nearly totally blind from a nervous affection, and in inquiring about her history, I learned a singular and interesting fact. She had been married twice, and with both of her husbands she had experienced an unusual excitability of her sexual organs. She said that during the intercourse she passed through at least fifteen or twenty states of orgasm before the husband got through his work, so that she was completely exhausted, so much so that she could hardly live, as she expressed it. This was not only one time but every time; she had often to pursuade her husband to desist from his intercourse with her on that account.

The president called the attention of the members to the case mentioned by Dr. Holland, and requested the expression of opinion in regard to it.

DR. HOLLAND.—I would like to have the gentlemen touch upon the point as to whether the stricture could be caused by the pressure of the tumor, whether the pressure alone would be able to organize the stricture of the rectum. I am of the opinion that the stricture is independent of the tumor. I should like to hear the opinion of the members.

DR. MONTGOMERY.—I think the tumor ought to be removed. I don't think the removal of the tumor can make the stricture any worse, and it should be removed if the patient is willing.

DR. JOHNSTON.—Before we talk of removing a tumor we had better find out what sort of a tumor it is. It may be a tumor that we can't remove. We had better find out whether it is a fibroid, myxoma, or what it is. I remember a case of a lady who came to this city and was examined by me and I told her she was not pregnant. She fell into the hands of a gentleman out on Papin Avenue, who was going to undertake to deliver her. I was sent for and refused to take the case until he was dismissed, and then got the woman a boarding house on eleventh and Pine Street. The abdomen was reduced. The woman was past

nine months then according to her count, but she said she could feel the child moving in the abdomen. She was not pregnant at all, and is since married. The tumor still exists.

SATURDAY, June 10th, 1882.

The American Medical Association.

DR. MCPHEETERS.—I would like to have Dr. Prewitt give some account of the American Medical Association.

DR. PREWITT.—I will only say a few words. The matter of the New York Society was referred to the judiciary council and was disposed of very summarily, to the effect that the delegates from the new York Medical Society be not admitted. I will only say in reference to the whole matter, that I suppose never in the history of the American Medical Association has it been treated so grandly as it was at St. Paul. The citizens, the railroads, the steamboats and even the saw-mills seemed to vie with each other in doing honor to the Association. On Tuesday they were given a grand banquet at the Metropolitan hotel; on Wednesday night the citizens threw open their houses. The governors, ex-governors, business men and physicians all threw their houses open to the profession; and on Thursday evening they were invited, and the whole association went in a body to Stillwater. First they were taken by railroad and then on steamboats to St. La Croix lake above Stillwater and down again, and then carriages conveyed us to the house of a wealthy lumber merchant of Stillwater which was lighted up for our reception. The large grounds and even the stables were lighted by electric lights; there was music and a platform for dancing; there were four or five long tables with over a thousand covers laid. In his house were wine, champagne, cigars *ad libitum*, and indeed it must have been a very expensive affair altogether. There were nearly a thousand delegates present. The railroads to the north-west territory furnished transportation free of charge and the delegates went wherever they wanted to go no matter where. We went to Duluth "the zenith city of the unsalted sea" as Proctor puts it. Then in regard to the general association. It was so hot a part of the time in the Opera House where the general session met that it was difficult to stay in there, and I didn't hear a good many papers that

were read in the general session. There were some very excellent papers read. Dr. Marshall of New York presented a great many illustrations with his solar microscope. And there were a great many papers read that I don't recollect now. Then the sections met in the afternoon. These met in different halls. The surgical section met in Sherman hall, the gynecological met in another; the medical section in another and so on. Dr. John L. Atlee, of Pennsylvania was elected President. The old gentleman was present and it is probably the last opportunity the association will have to pay this compliment to him. There was some discussion with regard to journalizing the proceedings of the association as was done by the British Medical Association, but it was simply put in shape so that it is possible to commence it next year. I don't suppose it will be done this year. The association adjourned to meet at Cleveland, Ohio. I thought at one time of suggesting St. Louis, but after the grand demonstration up there concluded that I would scarcely take the responsibility of inviting them down here.

What the Ancients knew about Obstetrics and Gynecology.--Translations from the Latin Edition of Oribasius of the 4th and Aetius of the 6th Century. By G. M. B. Maughs, M. D. Prof. of Obstetrics and Diseases of Women, Missouri Medical College; President of Obstetric and Gynecological Society, etc.

Through the kindness of Dr. Dickinson I have here a most rare work, perhaps the most valuable work in the world on medicine, and almost certainly the only copy that has ever been west of the Mississippi river, and as you will see it is a work that has been very little consulted even by the learned men of Europe. This book, a Latin translation of Oribasius and Aetius is three hundred years old, and is to many a revelation touching obstetrics and gynecology; it is evident that the medical writers of to-day have not read this work. For instance, many have supposed that Récamier invented the speculum. It was known that a speculum had been in use but it was supposed to be a very imperfect instrument. All supposed that James Y. Simpson was certainly the first to use sponge tents and uterine sounds, but as we shall see sponge tents and uterine sounds were in use centuries before. We all supposed that Amussat was the first to make an artificial vagina, but we will see that Archigenes, a distinguished gynecologist of the first century, made artificial vaginæ also; so that we see there is nothing new under the sun.

These persons were just as familiar with those things as we are. Obscurity occurs sometimes and it is difficult to translate these things because they lacked terms to convey the idea. For instance the term "vagina" does not occur in all these books, and when the vagina is intended they use *sinus pudendi*, which generally means vagina but is sometimes used to mean the fissure between the labiæ. This difficulty arises from the lack of express terms. If Demosthenes were resurrected to-day and possessed all the command of language for which he was celebrated he could not find words to express the idea of telegraph and telegram; and yet these are Greek. Now this difficulty occurs here. They knew perfectly well what they were talking about but did not have words to express themselves. Thus Oribasius speaks of the vulva as lying between the bladder and the intestines etc. I will state that this book is a translation into Latin of the fourth century. Oribasius, who was court physician to the Emperor Julian, was commanded to write a work on medicine, and made an epitome of all the works on Greek and Latin medicine, in seventy books. This great work was translated into Latin by Dr. Rasarius of Novariensis in 1553. This work was published before the almighty printing press had made the multiplication of copies so cheap, and when much was done to save time and trouble by contracting words that would admit of contraction. These old writers had to buy parchment, and the sheep skin cost money and the writing time, so that there was a double object in these contractions; then again the u and v look alike and it requires some pains sometimes to determine which it is, and the "i" and "j" are alike so that you will observe that there is some difficulty in reading it.

I will read to you first from Oribasius, on Procidentia:

DE UTERO PROCIDENTE.

"In the first place I empty the bowels and the bladder may be emptied with the reed catheter, and then the patient being placed in the supine position, with the pelvis elevated and the thighs bent and the legs separated, the surgeon takes a warp of wool of the size and mold of the vulva—and wraps it with linen cloth and dips it in the juice of hyposistus and acacia." Saturates it with astringents and places this against the uterus and gently lifts it into position. "He now introduces the sponge into

the vagina, and places the woman upon her back in bed with her thighs together, and one leg crossed over the other; and on the third day he removes the tampon and washes out the vagina with an astringent decoction, and again introduces the tampon, and sometimes places balsam upon the pubes and lower portion of the belly, and continues to keep the parts clean by washing them with astringent injections until a permanent constriction has been induced." Now I will read from the last sermon or discussion of the last one of the four books of Aetius.

"Concerning the rationale of conception and parturition and the diseases of females, more especially of the uterus and mammæ, and also on the preparation of most valuable ointments and potions and fumigations:"

THE UTERUS, ITS SITUATION, SIZE AND FORM.

The uterus, Greek metra is called the matrix because all life, as it were, originates from the matrix. It is called hystera because it is situated beneath all the viscera. The site of the uterus is between the peritoneal membranes of the bowel; between the bladder and the straight intestine. The size of the uterus is not the same in all, for the uterus is often much less in those who are not pregnant, and much greater in those who are pregnant; and in those who never have had venereal connection it often remains through life of small size. Its greatest length is between the pubes and the umbilicus, and is attached to the symphysis pubes by ligaments. Its greatest breadth is between its two horns which arise in either side of the fundus. These horns first pass upwards and then turn back and bend finally to either side where they are fixed to two sinuses tubes, and one lies upon either side of the uterus, and are erected during coition and draw up, or conduct the semen from the female testicles. "And there is an opening in the neck of the uterus through which the menses pass out and the womb receives the male semen, and the fœtus itself, inredible to relate, also passes through it. For the remainder of the time it is scarcely large enough to admit the point of a *sound;* but during labor it extends until the whole fœtus passes through it."

THE MANNER OF THE FORMATION OF THE AFTERBIRTH.

"This is the way the secundines are generated: the vein and the artery at its mouth where it enters the uterus has at its

extremity-tubercles, just like hæmorrhoidal eminences and these are less in women than in the cow and goat and the deer and other like animals. But in brutes are softer and more mucous, and look like rootlets of plants. These eminences in the mouths of the veins at the time of conception in the woman are open but following the time of menstruation they are closed, and remain so the rest of the time, and are only open at this particular time and conception at this time is impossible because it would be washed away. After the abundance of the discharge of the menses is over they are closed at which time the semen is retained. At this time the semen being received and retained in the ureters reaches the acetabulum to the left or to the right and conception is completed; the secundines are generated from the open mouths of the vessels opening at the summit of the uterus and on either side. This is the manner in which the after birth is generated. After the conception the mouth of the uterus is again closed."

ON THE MENSES.

"At fourteen years of age the menses appear in woman. It is not the same time with all nor is the quantity the same or the number of days through which the menses continue, but often more, sometimes less. Sometimes the interval between the menstrual periods is twenty-two and sometimes as high as thirty days, but seldom as late as the thirty-fifth day. It is a rare thing for a woman to menstruate after she is sixty years of age, and at this time the menses cease completely which have flowed abundantly heretofore; it begins with a flow of small quantity and irregularly and soon ceases entirely."

THE MANNER IN WHICH WE ARE TO KNOW WHEN A FEMALE HAS CONCEIVED.

The first argument or reason for knowing that a female has conceived is that the semen after coition was retained; if in the act of coition she perceived some shivering and felt some pain about the vulva and umbilicus; if the mouth of the uterus is closed, and not hard from inflammation, but is closed within and without and a little elevated; if the venereal appetite still remains, where the menses fail to appear at the usual time, if the veins of the chest begin to turn green, and the mammæ to become intumescent, and where in the process of time the milk appears

in the breasts; if about the second month of pregnancy the woman has the usual appetite for salt and acid substances; where the color is turgid becoming pale or becoming red if the woman is robust; if following the second menstrual purgation the symptoms of pregnancy were aggravated and the mammæ intumescent with difficult movements of the loins, with red and high colored urine accompanied with pain when it was discharged, and where after the menses, the heat of the cervix and vagina was increased.

THE SIGNS WHETHER THE FŒTUS IS MALE OR FEMALE.

Hippocrates and others have noted that the signs of a male child were: if the pregnant woman is of good color and if the right breast is larger than the left, and especially if the nipple is so, then it is a male child. And if on the contrary the color is pale; and if the left breast is pale and very tumid and larger than the right it is a female child. If it is a male child the vessels of the right parts—the veins and arteries are very intumecent, especially under the tongue; and in a female child the contrary appears. So likewise the nipples in a pregnancy with a female child turn downward; and in a male child they turn upward; but the most certain and least fallacious of all is that in pregnancy with a male child the pulse in the right hand and arm is quicker and larger and harder than it is in the left.

DE FŒTUS EXTRACTIONE.—ON EMBRYOTOMY.

"Before resorting to exsection of the fetus we may try medicine. Whether it will not relieve the woman or whether the case is deplorable, and where in this manner we may not relieve her we must relinquish the case as hopeless. The fatal symptoms of this affection are lethargic sleep and faintness from which they are aroused with difficulty, and after calling on them in a loud voice they respond feebly and fall back again in deep sleep; likewise when they are seized with convulsions and with trembling of the nerves and the pulse is rapid and full nothing can save them but delivery. For this purpose the woman is placed in bed in the supine position with the head low and the pelvis elevated. First we give two or three mouthfulls of bread with wine, and sprinkle wine upon her face for the purpose of arousing her from her depression of spirits. The surgeon now separating the pudenda with instruments examines whether it is

a tumor or a callus eminence, or whether it may be removed by operation and if so he seizes it with a volsella and cuts it off with the scalpel as will be related hereafter; but if the membranes obstruct the mouth of the womb it should be cut off also as we will relate hereafter; but if the obstruction arises from the great solidity of the membranes that surround the fœtus he must distend it with a volsella and puncture it with the scalpel and enlarge the incision with the finger so that the fetus can pass through it. And if the head of the fœtus obstructs he must turn by the feet and then deliver. And if he can not break up the obstruction in any other manner he must fix the hook of the tractor instrument in the eye or mouth or under the chin and extract the fœtus. And this is the manner of extracting with the instrument. The tractor instrument is held in the right hand and the hook covered by the fingers of the left hand with which it is introduced gently and fixed in some selected part; and then the other instrument is introduced in a similar manner and fixed upon the opposite part, and traction is made equally and declined to neither side and not greater nor less is the traction to be made on one instrument than upon the other until the fœtus is delivered, and the direction of the traction is not alone in a straight line but obliquely from one side to the other. The fingers must be smeared with some kind of ointment and introduced within the os uteri, and passed around the impacted body. After the fœtus has been half extracted the instruments are to be transferred and fixed in a part above, and if the head either from nature or from hydrocephalitic affection is tumid with water, and produces an impaction from its great size, it is to be opened with the scalpel and the waters evacuated, and the contracted head extracted. But if this can not be done, we must break up the calvarium and take out the bones with the fingers, but if this fails they must be extracted with the bone forceps. The tractor instrument must be fixed in the parts and the fœtus extracted. And if the head is delivered and difficulty occurs with the shoulders we must in the same manner dissect out the clavicle and open up the cavity of the thorax and evacuate the humors so that the mass will collapse. But if the obstruction occurs from a too great distension of the belly, because the fœtus is dead, the same method must be pursued. We must open up the abdomen and remove the intestines. But if the hand is prolapsed we must resect it from the humerus, first having

thrown a linen bandage around it and drawn it down slightly by which we can reach the articulation of the humerus, and having separate the labia and pudenda we must dissect the part, and after this we must introduce the left hand, aud thus bring forth the fœtus. The same thing is to be done when both hands are prolapsed, and in a similar manner when the feet are prolapsed. But if the body does not follow we must dissect the limbs loose from the groin and the hip joint and if the fœtus becomes doubled and we are not able to unfold it, and if the head is most exposed we must break up the bones and dissect it out, then we must fix the tractor instrument upon this part and extract it, and draw out the limbs and dissect them at the hip joint, and dissect the coxal articulations and break up the pelvis as we did the head. But if the belated head is detained, the left hand is to be anointed with some kind of oil and introduced into the fundus of the uterus, and the head is to be seized and brought through with the fingers into the os uteri and one of the tractor instruments fixed in it. And the proper place for fixing the tractor instruments are the head, eyes, meatus of the ears, mouth, anterior parts of the chin, in the thorax, axilla, clavicle, præcordia, the breasts, vertebral articulations, legs and bones of the pubes, the female pudenda if it be a female child. And then if the mouth of the womb is closed, if there is inflammation no violence must be used, but we must anoint the parts with fat and use irrigation and cataplasms by which the inflammation is reduced. And after the mouth is dilated and the fœtus is delivered, and after the dissection of the fœtus we must compose again the parts diligently, observing that no parts have been left behind."

QUOMODO OPEM OPORTET EIS QUAE NON TUTO CONCIPIUNT.

The manner in which we may extend aid to those women in whom conception is hazardous.

Conception in some women is attended with great danger, either because of the smallness of the uterus or because the fœtus is not able to escape, from the narrowness of the neck of the uterus, or from a tumor, or a like condition of the bones of the pelvis which impedes parturition, and certainly it is best in these if they can altogether avoid parturition, for if they conceive it is necessary to destroy and dissect the fœtus. Therefore from the rule of destroying the fœtus we must take measures for

the induction of sterility. For that which induces sterility differs from that which destroys the child; this done conception is prevented; that done and the child is destroyed and removed. Therefore as the woman must not conceive she must avoid congress with the male at the time when conception is most likely to take place, which is manifestly just before and just after the menstrual period; and then at the time of coitus itself, when the semen of the male is ejected, she must hold her breath, where by the semen is not carried into the cavity of the uterus, and she must get up immediately and place herself upon her knees, produce sneezing, and cleanse the pudenda carefully. And for the prevention of conception the os uteri must be anointed with honey, or with opobalsam or cedar oil, either by itself or mixed with white lead or liquid alum or galbano with wine. To the same end cold and astringents when carried to the meatus just before coitus close the mouth of the uterus, and prevent the semen entering its cavity. Warmth, truly, not only incites the male semen but expells it from the uterus, and likewise draws the other humors and smears over the parts, and by avoiding those things that are followed by conception, sterility is induced.

It is here seen that "there is nothing new under the sun." The reasons here given for preventing conception are legitimate and proper, and the means used doubtless efficient in most cases. The chapter is doubtless by Aspasia, who is credited with the one preceding it, on the aids to difficult parturition, and who doubtless is also the author of the article following this, on the means of preventing conception and from its fullness and the undoubted efficiency of many of the means taken there is no reason to doubt that it was for quite different purposes than to prevent conception in deformities. Doubtless the women of Greece and Rome had the same objection to bearing children that gives to the gynecologist hundreds of cases among women of the present day, and if this long list of medical suppositories and potions given by Aetius were less efficient than some of those used at the present day, they were also less dangerous.

DE UTERUS OBSTRUCTIONE.—OF OBSTRUCTION OF THE UTERUS.

There may be obstruction about the mouth or neck of the uterus, either because of previous ulceration, or from induration from inflammation from which the part is so greatly narrowed

as not to sufficiently admit the semen; or this being admitted is not retained, because on account of the hardness the womb cannot contract. If, however, the semen being admitted and retained within the greatly narrowed os, a fœtus is caused, this indeed leads to the death of the pregnant woman because of the too great contraction of the parts the fœtus cannot be expelled. In this case we must use decoctions of fennel and oil and water, and relax the parts with emollient suppositories of wax and those prepared from œsypus, turpentine and nitre. And when the parts are soft to the touch we must introduce a *sponge tent with a cord attached* within the contracted part for its sufficient dilation, *and after its removal we must introduce a larger one, and for this purpose we must have prepared many and different sized sponge tents*, and afterwards we must smear the sponges with the following ointment: Ext. Sandarach, dry alum, āā. ʒi; orpiment ʒiij. rubbed up together with honey. *The sponge tents are placed in this until coated over; and if it is seen that the dilated sponge has not sufficiently opened the part, and inflammation has sprung up*, the sponges must be covered with the following ointment: Iridis ʒii; goose grease, turpentine, frankincense, oil iridis āā. ʒi. First the iridis then the frankincense is reduced to the finest powder and sifted, then the turpentine and goose grease are added and they are all united together. But when the inflammation has subsided and the part is open, the sponge may be smeared with a preparation of rose oil and goose grease, in the use of which we should persist until cicatrization is induced and the place slightly consolidated. This is evidently from Archigines.

DE CALCULI UTERI.—OF CALCULI OF THE UTERUS.

Tufaceous calculi are sometimes generated in the uterus itself which if we desire to extract, we first evacuate the bowels of stercor with a glyster, and then wash out the uterus with a decoction of fennel or mallows, mixed with resin, when the woman is placed supine with her legs separated and placed upon two stools. The finger of the left hand is introduced into the foramen of the anus, while the right hand compressed above upon the abdomen feels the calculus, draws and pushes it, at the same time with the finger in the anus conducts and pulls it, and when the tufaceous substance has been brought within the neck or the lips of the uterus, the woman being properly placed and the

parts dilated with a *speculum*, it must be cut off with a scalpel and the parts sprinkled over with a dry medicated flower.

DE CALCULI VESICÆ MULIEBRIS.—ON CALCULI IN THE BLADDER OF FEMALES.

"Calculi are rarely produced in the bladder of women because they have a straighter and wider meatus urinarius, and when by chance it is generated it may be extracted thus: The woman being placed with her hips hanging over the edge of the table her legs bent and placed on two chairs. The finger of the left hand is introduced into the pudenda with the right placed above the pubes and expells the calculus against the neck of the bladder, and now a little above the wings of the pudenda at which place the calculus has arrived, an incision is made, and it is seized with a calculi forceps and extracted. Afterwards the incision is filled up with frankincense and clean wool imbued with warm oil is placed upon the abdomen, and two or three times during the day, and once during the night, it is removed and the place washed with warm oil; and on the third day we fill the incision with dry soft medicaments used for the formation of granulations and continue this until the production of flesh is perfected."

DE UTERO NON PERFORATA.—ON NON PERFORATION OF THE UTERUS.

"Some women have from nature the uterus not perforated and this obstruction may occur at three different places. In some cases the obstructing membrane, or flesh springs from the sides of the pudenda itself or from the labia; in others the obstruction occurs within the vagina itself; in others again the obstruction is about the lips of the uterus itself. In those cases in which the membrane arises from the lips of the pudenda the cure is this: We place the patient in the supine position with the legs flexed and separated, then with a scalpel, we cut away the obstructing membrane until the shape of the pudenda has attained the natural dimensions. Afterwards we fill the lacerated section with lint and bind it there, and for the cure of the suppuration we apply daily some kind of poultice, then we use lint imbued with rose cerate; and if after section the sides of the pudenda appear to be united by the joining of the fleshy parts, we again break them up and separate them with lint and pursue the same course of treatment. The woman must be

placed in the supine position with a pillow between her thighs until cicatrization is produced. But if where the external figure of the pudenda is open, the vagina is obstructed by flesh springing up within it so as to leave a narrow opening the woman being placed in the same position a *sound* is conveniently introduced into the neck of the uterus for the greater safety, for we must not through error make the section too deep; then guided by this sound (stilum) we must denude the part with a broad knife until the vagina is seen to be according to nature; then the labia being distended, we continue to dissect the flesh to a quadrangular shape we trim off the dissected flesh, and stand the woman up with the legs separated for the fluids which have collected in the uterus to readily flow away. When this has been done sufficiently the patient is placed in the former position and lint imbued with wine and oil is placed between the divided surfaces; but this should have a cord tied around it that we may extract it readily. The parts being properly dressed we should command quiet. On the following day the place must be washed with water, wine and honey and a tampon of lint immersed in ointment for suppuration is introduced, and when cicatrization has taken place a *tin tube* is introduced and bound in the vagina until the parts are consolidated. Should the parts again become joined together so that the mouth of the womb is again closed, we must put in a *sponge tent* until the hardness has been removed. But if membrane obstructs the mouth of the uterus itself the woman is placed in the same position and the vagina distended by the introduction of a speculum (dioptra), the membrane seized by a volsella, distended and twisted until all are bound together and amputated with a broad scalpel. A tampon of lint with a thread tied around it is introduced, and the same treatment pursued. Should there remain any of the membrane the cure may be completed by a modicated flower called psaro. To cleanse the part it may be washed with this medicated liniment wax, turpentine, goose grease āā. ʒii; oil iridis, thuris āā. ʒi; saffron ʒiij; oil irini ʒxiv; rub up the saffron and frankincense into a paste and mix them with the liquids until the whole becomes liquid. The introduction of the *speculum* must be continued and the flesh not allowed to spring up in the cavity, which can be prevented by the following medicament: ℞ scales of copper, rust of copper, frankincense bark āā. ʒij; rub up together and use; or the rust and scales of copper with lead mixed together and

given. But the use of the sponge tents (spongiæ siccæ) is not to be discontinued until the hardness of the lips is subdued, also the tin tube is to be introduced into the canal.

ABSCESSUS ORIS UTERI CHIRURGIA.—THE SURGICAL TREATMENT OF ABSCESSES ABOUT THE MOUTH OF THE WOMB (PELVIC ABSCESSES).

"When an abscess exists about the mouth of the womb which can be treated surgically it is best not to incise too soon, but to wait until by inflammation and pressure of the contained pus, the parts are greatly thinned. The woman is then placed supine in a seat with her thighs flexed upon her abdomen and the legs separated, with her arms placed under her thighs and properly bound by a cord passing over her neck, and thus arranged she is placed before a strong light. When the surgeon seated at her right side with a *speculum* instrument suited to the age of the patient, with the pudenda separated makes an examination, and with a *sound*, measures the depth of the woman's vagina so that he may not compress the uterus by having a *speculum* with too long a stem, and if it is found that the stem is longer than the vagina, he may place a roll of wool upon the labia or sides of the pudenda so as to make the *speculum* firmer. The stem should be so introduced that the screw is turned to the upper part, and while the surgeon holds the *speculum* the screw is so turned by an assistant that the vagina is distended by the separating of the plates of the stem, and when the abscess is brought into view, if soft to the touch, and the apex thin, it may be opened with the point of the scalpel or a lancet, the pus being discharged, a thin piece of lint covered with rose cerate is placed in the incision, and a piece is also placed outside the incision within the vagina, and moist wools, or wet with pure oil is placed on the labia pudenda, pubes and loins, then on the third day the woman is seated in a bath of warm oil, or decoction of mallows and a thorough cleansing made, and a piece of lint smeared with tetropharmics by itself or with honey is gently placed within the section, and a cataplasm made of tetrapharmacum diluted with butter or rose oil is placed on the outside until the inflammation has subsided and suppuration established. But if there is difficulty in cleansing the wound it may be washed with a decoction of iridis by means of an ear syringe and a plaster prepared from calamine or lead, or that which is from the class of burnt preparation either diluted with

rose oil, may be used until the wound has cicatricized. But if the abscess should be within the mouth of the uterus, surgery must not be resorted to, but the cure must be after the manner we have previously related."

This article is by the distinguished Greek Gynecologist, Archigines who lived A. D., 50. His uterine abscess, under our more accurate nomenclature would be known as pelvic abscess; it would however be the same thing and the treatment here recommended could scarcely be improved upon at the present day. But what is of the greatest interest is his full description of the manner of using the vaginal speculum which—without any intention of describing an instrument, with which he supposes every one is acquainted—gives us so accurate an idea of the instrument itself, as to leave but little glory to Ambrose Paré in 1640 or to Astruc in 1761 or Récamier in 1801–1819 in *discovering* this useful instrument. All that was necessary with these discoverers was to read this chapter of Aetius on the surgical treatment of uterine abscesses, or the previous chapter by the same author. J. Y. Simpson's discovery of sponge tents is accounted for in so admirable a description of the use, dangers and how to avoid the latter, of sponge tents as to almost induce the belief that these *discoveries* were but *thefts!*

Article XLI.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty-Fifth Annual Meeting, held at Brittingham Hall, Hannibal, Mo., May 16–17–18, 1882.

On the Organization of Local Medical Societies. By Dr. T. J. Norris, of Macon.

The committee, whose report this is, has as yet no plan perfected by which it could obtain full information, but it can refer the association to a medical journal which has obtained all the information which could be obtained. The report made is not complete, but as far as it goes, it is accurate.

As this committee will, I hope, in the future be relieved of this work by the journals, we recommend that we be relieved by some other committee; and also that the secretaries of local societies be requested to send in reports to the secretary of this association; the secretary to furnish this list for publication to the medical journals desiring it.

These sentiments are all my own. Now what are the reasons medical organization is not more popular, and that local societies are so short-lived? I hope the committee on State medicine and State medical education will pardon me for entering upon some of its ground. In regard to the first the reason arises from the fact that the State Association, as a body, has shown but little effort in effecting this. It has not been encouraging this course but for the last two or three years, and then only weakly. It has really encouraged physicians not to become members of their local societies.

There was a change in the constitution offered at the last meeting, in substance as follows:

No physician shall be eligible to membership unless he be a member of his county society, provided one exists.

Again, as to membership in the association, it is so easily gained or lost as to be no object, and a change is necessary, *i. e.*, to establish a permanent membership which would soon make the number reach into the thousands, and papers would be pre-

sented and be read by thousands, instead of one or two hundred. Is this not worth doing?

As things now stand could we get any measure, upon which we might agree, through the legislature? Advanced medical legislation is a distant thing of the future unless the profession is more united. Will any one think that could we present a just and sensible bill, that our prayer would then be unheard?

Another argument for organization is, that it is only the well-disposed, honest and loyal physician against whom the penalties of the code are brought up and enforced. The good man for whose protection the code was made does not need it, and the bad one for whom it was made is not amenable to it. There is a want of harmonious action in bodies. Parties and sects are formed; strife is engendered and gives excuse to some not to conform to the code, and still claim to be regular. Their capital is made up of the alleged bigotry of those adhering to the code. Here would, without calling in question the action of the gentlemen of the New York State Society, be put in an entering wedge neither looked for nor desired by the instigators. For such society to ignore the code of ethics entirely and boldly defy the whole profession is, to say the least, out of place. In making this departure a precedent is made and will be followed by others who honestly believe the end justifies the means. The top bar being down in a few years we will see the code a dead letter and the race a "free for all."

I cannot see where any possible good can result from an unrestrained system of consultation with irregulars. With advertisements ambition could be more easily satisfied, and with less money than by starting new medical colleges.

Quackery is an unrelenting foe to the profession. The fact itself, of an attempt to break down the barrier, though made by good men, true and loyal, should engender feelings of great anxiety in all. What will restrain the unscrupulous from dragging the profession in the mire? In this argument they reveal the true danger, when they say that they wish to consult with those whom the code regards as improper. It is a mere matter of personal opinion, taste or inclination as to whom they may consult with. The code being disposed of, they will not be bettered. I would be glad to see the day when no written code would be necessary and when the unwritten code would be respected as that which governs ladies and gentlemen in society.

No honest man is right in lending his influence to aid deception. No physician here present would do so; but it has been done despite protest, in the medical center of the United States, and will be done elsewhere unless promptly stopped. A crisis is upon us; it will be a revolution in a few years. The American has no respect for tradition; he is impulsive and often advance does not mean progress but the opposite, and "advance" is bringing us to the time when the quack will be admitted to the same footing as the educated physician.

The profession will lose the confidence and support of the people looking up to it, and of its own honest and steadfast members. Surely none desire such results. There is already a lowering of a standard that is too low. Let the term "Doctor," in America, mean something as it does in Europe. Elevate the standard; but this cannot be done by recognizing all sorts of fraud and quackery. If each physician can exercise his private judgement, the profession has no redress. What hope is there that this unbridled liberty will not be more disposed to work evil than good? The action of New York will not tend to elevate the profession there or anywhere else.

DISCUSSION.

DR. POTTER, of Cameron.—I feel very much interested; from what I know, one-half of the physicians of this State have read the code. Many will speak of it to you and are unable to tell you a sentiment in it. They think it is a weight, crushing; that the law is so rigid, that to observe it, a man must be in a straight-jacket. It is sometimes made a plea to strike down a young man who is rising and gaining the confidence of the community. They see something simulating irregularity, and are ready to put their foot upon him. As I understand the code, it teaches us our duty to each other—that we should act like honest, principled men. If there is anything rigid in it, I do not see it and I have read and re-read it.

If a man was shot down or cut up on the streets of my town, and a homœpath or irregular were called in my absence, to try to stop the bleeding of the man bleeding to death, what is my duty? Am I to sit down and say, "I cannot touch it; that man must be dismissed." The code of ethics teaches us what we owe to our patients. I am not endorsing the irregular by working to save that man's life. There are times when we are forced into

their society, but it does not follow that we endorse their practice.

DR. CAMPBELL, of Callao.—The paper just read contains a number of valuable suggestions. I could not endorse everything said in regard to the code of ethics; I agree with the remarks of the last speaker. Dr. Norris stated, in Europe, the term Doctor meant all that the name implied, by which we were to infer that the status of the profession is better in those countries than it is here. As I understand it, in England, medical education is under government control. There is no doubt that this plan secures a uniformity in mere theory, but it does not follow that they are better qualified, practically, than in this country. It limits the profession to those who can take the prescribed course, excluding rigidly all those who might by their own energy, rise.

It is claimed that this rigidity betters thought and investigation. If, however, it be left without restraint, the object is a natural desire to excel on account of the close competition, and it becomes the mainspaing of action. I claim that, in the last twenty or thirty years, no country has made as much progress as the United States. The reason is because these rigid rules have not been required to the same extent in this country as in others.

Errors have been exposed and a purer, nobler and more rational system has prevailed. Now, I do not think that we need be so exact and rigid in our State Association, in regard to members endorsing other systems of medicine. It is impossible to avoid association with them to some degree. To refuse to have the least communication with them would be to reflect upon them as members of the community. The allopathic system as it exists to-day, would not have been regarded orthodox thirty years ago. Many innovations have been made, and it is this unfettered freedom that has made the profession what it is.

DR. ALLEN, of Liberty.—Dr. Norris has given us a valuable suggestion in saying that we ought to have county medical societies and we ought to act upon it. I think the Doctor stepped beyond his bounds in going into ethics. I studied in the regular school because I believed it to be founded on truth, and have never consulted with irregulars, as in doing so I would feel as if I were endorsing a falsehood.

As to the Eclectics, they are a variety of Thompsonians. They fought against calomel, and are now approaching our system. In point of fact, they have added nothing to the science of medicine, and we do not owe them a single iota.

DR. HUGHES, of St. Louis.—I was in hopes that some one of the gentlemen in this vast assemblage would have protested agaist the application of a term directed against our profession; "allopath" is a term coined by Homœopaths and applied in opprobrium. Gentlemen do not consider when they accept such a term. They do not appreciate the force of accepting such terms as applied to a liberal, universal, scientific body which rejects nothing that is good from whatever source, while it refuses to sail under false colors, even to captivate the public. *We are not allopaths!*

DR. MITCHELL, of Lancaster.—I endorse the paper, living as I do in a country town and having labored three or four years in the organization of county societies. There is a great satisfaction in our section that we are all one solid body, if New York does secede.

DR. SMITH, of Frankfort.—One point strikes me, as it is of individual interest. As a profession, and I believe every member present takes it for granted with me, every member is a gentleman and each one knows his duty. When there is antagonism between ourselves and our patients, we make our own decision. Those violating the law are not seen, and there is nobody to look after them, therefore we are liable to sacrifice somewhat of our allegiance to the code. In regard to this latter, I will say it is necessary to keep aloof from the irregular. It is true, we meet with gentlemen, honest in their opinions, but our self-respect is first and although you meet courteously each other, you must keep aloof to save your own respect.

DR. TODD, of St. Louis.—I wish to call attention to the absolute necessity of organization in this State. The secretary had an onerous duty to find out societies and their secretaries in this State, and only found out a few. The impression I have formed is that there are a few in one corner and none in the rest. We ought to take particular action in this regard and not receive members who do not come from accredited local socities.

DR. HALLEY, of Kansas City.—The practical part of the paper

is the manner of going about organizing county and district medical societies. We are working as a body, nominally the head of the profession of the State, and yet we are acting without tentacles. There is so large a number of gentlemen here who are not representatives of local societies that we lack unity, so necessary to give this body legislative powers. The manner seems to me to be this: to appoint a committee to so change the by-laws as to have permanent members. Let us have every regular physician of Missouri a member of this association, and let every one be an elector and elect an executive body to regulate the practice of medicine and medical education in this State and get at the vitals of quackery. There is no educated man who is a quack. Educate men thoroughly; do not give diplomas so easily; see to it and know that your man is educated.

Periscope.

Article XLII.

PRACTICE OF MEDICINE.

Spina Bifida Cured by Injections of Iodine.—Mr. A. Pearce Gould reported the following case to the Clinical Society of London, (*British Medical Journal*): A boy aged six months, was brought into the hospital, with a tumor over the lumbar vertebra about the size and shape of a large tomato. It was translucent, fluctuating, sessile, covered with healthy skin. The child was otherwise perfectly healthy. The tumor became tense when the child cried, and pressure on it caused fulness of the anterior fontanelle. One ounce of fluid was drawn off, and one drachm of Morton's iodo-glycerine solution injected. This producing no effect, the operation was repeated a week later, when half a drachm of the same solution was injected. After this the tumor became solid and shrank. The fluid removed was analyzed and found not to contain even a trace of sugar, showing that it was arachnoid and not cerebro-spinal fluid. During the discussion that followed it seemed to be the sense of the Society that while this was the best treatment known at present, for spina bifida, the successful cases were few and far between. The President, in conclusion, stated that he believed that Dr. Morton now thought it advisable not to draw off the fluid from the spina bifida, but merely to inject the fluid, that being quite sufficient for the treatment of the case.—[*Medical and Surgical Reporter.*

Diphtheria in Paris—In his recent quarterly report on the prevalent diseases of Paris, M. Ernest Besnier has drawn special attention to the constant prevalence and fatality of diphtheria. During the last quarter of 1881, no less than 605 deaths were due to the disease. He remarks that the progress of public hygiene seems as powerless to arrest the epidemic invasion of diphtheria as the medical art is to save those that are attacked. The mortality from this cause has been steadily augmenting during the last twenty years, and has so rapidly increased as to have doub-

led, and has now resumed and retains a foremost position among prevailing maladies. During the last ten years typhoid fever has caused 13,004 deaths in Paris; eruptive fevers, 14,100; while diphtheria has caused 16,629, without including the extra-urban cases. The number of cases reported in 1881 was 1, 225, and of them 829 were fatal, being a mortality of 66 per cent.; and this is believed to be below the actual proportion, since all cases which leave the hospitals are reckoned among the non-fatal cases, whereas, some of them are subsequently fatal. M. Besnier is inclined to attribute some degree of this mortality to the experimental treatment of diphtheria by pilocarpine. This opinion was shared by M. Dujardin-Beaumetz, who, in the discussion on the report at the Société Médicale des Hôpitaux, asked whether the constant presence of a number of children suffering from diphtheria at the Hôpital Trousseau might not be a cause of the prevalence of the disease in the neighborhood of the hospital. M. Besnier was strongly of that opinion, and stigmatized the Parisian children's hospitals as detestable and foci of epidemics, while a considerable number of cases admitted for other diseases into these hospitals contract diphtheria there.—[*Lancet.*

ARSENICAL POISONING FROM SARDINES.—Dr. J. P. Jenkins, in the *Medical Herald*, reports the following: He was called to see two patients whom he found vomiting and purging violently, with pain at the epigastrium, intense thirst, dryness of fauces, extremities cold, shivering, chilly, pulse scarcely perceptible and very rapid, respiration very belabored, great agitation and restlessness, intellection good. Under the following treatment they both recovered: Milk and eggs to protect mucous membrane; hypodermic injections of sulph. morph. and atropia, quinine; carbonate of ammonia and whiskey were given as cardiac stimulants, and dialysed iron as a physiological antidote. They had both eaten sardines and oysters. Upon examination, the sardines were found to contain a large quantity of arsenic.—[*Ibid.*

ETHYL ALCOHOL AND ABSINTHE.—The effects of ethyl alcohol and of the essence of absinthe on the motor functions of the brain, has been dealt with by M. Danillo. No essential difference of influence was traced between the action of ethyl alcohol in strong doses and that of other anæsthetics and narcotics, as ether, chloral, morphine, etc. When the absinthe essence was admin-

istered there was first a tonic effect; second, a clonic display, when violent spasms alternated with great relaxation; third, choreiform symptoms of a peculiarly distressing nature; fourth, a delirium state, and fifth, a period of resolution. Generally the poisoning by absinthe is like that produced by strychnine except as to the existence of delirium.—[*Chicago Medical Review.*

NOTES OF A CASE OF A FRAGMENT OF IRON IN THE SUBSTANCE OF THE BRAIN.—In the *American Journal of the Medical Sciences* for July, 1882, Dr. Geo. Burr reports the case of a young man, aged twenty, who was wounded in the face by the bursting of an old gun.

The next day, when seen by Dr. Burr, he was perfectly conscious, complaining only of soreness in the vicinity of the injury, and some slight headache. None of the cerebral functions nor of the cranial nerves were involved or disturbed, with the exception of a slight defect in hearing in the left ear.

Some efforts were made to extract the foreign body by forceps, but these attempts failing, the patient was put under the influence of an anæsthetic, and the forefinger was passed into the wound. In doing this portions of brain matter escaped. On pushing the finger still further inward, a large opening was found in the cranial wall, through which the finger readily passed into the cavity of the cranium. No trace of the missile could be reached by the finger, nor found by any other means. The question of further surgical interference then presented itself, and it was finally determined to make no further attempts to extract the piece of iron at that time. The patient soon began to rally, and within a week left his bed, and a few days afterwards was out of doors.

Three months and a half afterwards he was seen after having driven a distance of at least twelve miles. He appeared well and hearty, had, however, a fistulous opening where the projectile entered, through which was discharging purulent matter. He went again to work cutting railroad ties. A month later he was taken with violent pain in the head, and in three or four hours died, having carried the mass of iron in the brain four months and thirteen days. The day before he had had a debauch, and was taken home in a wagon lying flat upon his back, stupefied from the effects of drink. The brain was removed entire. The iron was found within the brain, and

proved to be as at first supposed the tube and nipple of the gun. It was found in the anterior and inferior angle of the left and middle lobe of the cerebrum in near proximity to the fissure of Sylvius. The cavity in which it was imbedded was lined by a distinct membranous cyst.

PATHOLOGY.

ROSSBACH ON BACTERIA IN THE BLOOD OF LIVING ANIMALS.—Professor M. J. Rossbach (*Centralbl. für die Med. Wiss.*, 1882, No. 5) records some remarkable observations upon the increase of bacteria in the blood of living animals after the intravenous injection of a chemical ferment, itself perfectly free from any organism. In the course of certain experiments to determine the various physiological actions of a papayotin, he arrived at some results which would appear destined to throw considerable light upon the infective processes, and upon the multiplication of the lowest organisms in the bodies of the higher animals.

Having made injections of this substance into the blood-stream of a rabbit (partly through the jugular vein and partly through the veins of the foot), he discovered, after the death of the animal, which took place in from one to two hours, an immense number of micrococci in the blood removed directly from the heart. To make the observation more exact, he then examined a few drops of blood taken from the healthy bodies of several rabbits, and established the complete absence of any of the lowest forms of moving organisms. Immediately afterwards small quantities of papayotin (0.05 to 0.1 gramme), in a freshly prepared solution, were injected into a vein. Death was induced before very long, and invariably by paralysis of the heart, the respiratory movements lasting for a long time after the cessation of the cardiac pulsations. Blood was immediately taken from the heart and examined, and in every case, without exception, an immense number of round and oval bacteria were discovered, showing very lively movement, even in the cases where death had ensued within fifty minutes from the time of the injection. The bacteria were subsequently found to take a deep staining by means of aniline dye, and no doubt could be entertained as to their real nature.

It is an accepted fact that these lowly organisms may be present in the blood and the tissues generally of healthy living animals; but the healthy bodies appear to be the most unfavor-

able habitation for them, since they are only to be found in very small number, and often only after elaborate preparation. In a specimen of blood taken from the vessels of a healthy animal, it would be exceedingly difficult to detect bacteria with certainty; and hence, when in the course of certain diseases they are discovered in the blood in large numbers, it is assumed that they have made their way into the body from without, and that they possess especially powerful vitality, and an extraordinary poisonous action upon the affected organism, which thus leads to a whole train of symptoms, or even to the death of the individual, from the enormous increase of the continually developing bacteria. Here, however, for the first time appears an indisputable case where a chemical ferment, itself inorganic, free from foreign organisms, and of vegetable extraction, has, by its presence in the blood of a healthy living animal, so altered the properties of the fluids of the body, that the bacteria normally present within it have suddenly become endowed with vitality and with reproductive powers, enabling them within an incredibly short time to swarm in countless profusion.

In this case also, be it noted, the absence of the possibility of any outside infection could be made certain, and hence the astonishing dovelopment of bacteria could be attributed alone to the action of the chemical poison—a development in itself far more rapid than would ensue upon ordinary infection. This fact gives material support to the view that in true infection, besides the organic germ inoculated, the chemical poison or ferment which may accompany or form a part of it plays a not unimportant part in the subsequent processes. Further experiments must settle this debated question; but it may be recorded here that Dr. Rosenberger, working with Dr. Rossbach, has obtained a similarly rapid development of bacteria in healthy bodies, by injection of septic poisons rendered absolutely free from bacteria by boiling.—[*London Medical Record.*

MUSCULAR ACTION IN THE PATHOLOGY OF HIP DISEASE.—In the July number of the *New York Medical Journal and Obstetrical Review* Dr. A. B. Judson, Orthopædic Surgeon to the Out-Patient Department of the New York Hospital, discusses some points in the morbid anatomy of hip disease, with special reference to the supposed effect of muscular contraction in promoting the progress of pathological changes in the articular structures.

A careful review of the most important observations on record leads him to the inference that the crowding of the articular surfaces together by muscular action has no such effect. What mainly points to this inference is the fact that the primary lesions are not usually to be found in the superficial structures that enter immediately into the formation of the joint, but rather in the cancellous texture of the bones. This conclusion, however, casts no doubt upon the utility of the extension treatment, but simply leads to this interpretation of its beneficial action: Aside from the fact that we are compelled, empirically, by reason of its anodyne quality, to use traction, there is ample rational ground for its use. Traction, however applied, is unavoidably accompanied by fixation. The most efficient apparatus for the application of traction is, at the same time, the most efficient means known to surgery for the solution of that difficult problem, the immobilization of the hip-joint; and, finally, immobilization is indicated by every feature of the pathology as revealed in morbid specimens.

SURGERY.

SANITARY CONDITIONS IN RELATION TO THE TREATMENT OF WOUNDS.—Dr. Cabell, at the last meeting of the American Surgical Association, submitted the following propositions:

First.—Statistics show lessened mortality of late years in certain capital operations, especially those involving abdominal section. This is due in part to improved methods, but very largely to strict antiseptic precautions. The mortality in amputations and joint operations has not diminished in equal ratio.

Second.—The continued high rate of mortality from amputations in cities stands in contrast to the decreased general mortality and shows that the sanitary improvement of hospitals is behindhand.

Third.—The question is asked: Is twenty-two per cent. of mortality for all amputations above the wrist and ankle the best that can be expected? The various influences which oppose the repair of wounds, must be studied for an answer.

Fourth.—The prime factor in the repair of wounds is healthy blood, and this should be considered.

Fifth.—Results depend upon constitutional peculiarities, and upon hygienic surroundings, before, during, and after operation. These must also be considered.

Sixth.— Shock, a most common cause of death after primary amputations, owes its malignant potency to the fact that the system has not fully recovered from the previous injury. The desideratum is to prolong the primary or apyretic period. This may be done by Dr. Stephen Smith's method of carbolizing the wounds.

Seventh.—Septic complications have heretofore been the most common cause of mortality.

Eighth.—Much may be done to prevent sepsis by careful attention to all details.

Ninth.—Large hospitals, even those on the block system, and of several stories, are not *necessarily* subject to septic diseases, and the mortality here *may* be kept as low as in cottage hospitals or rural districts.

Tenth.—After observing every other sanitary precaution, there is good reason to believe that an additional protection of great value may be derived from antiseptic precautions practiced in conformity with the Listerian principle.

Eleventh.—"Listerism," practiced *de rigueur*, while not so essential in cases of amputation, has achieved results in operations upon joints and in "abscesses from congestion" which have not been paralleled by any other system of treatment.

Twelfth.—The preponderance of evidence is in favor of its utility in ovariotomy and abdominal sections generally.—[*Med. Record.*

ANTISEPTIC TREATMENT OF WOUNDS.—Dr. W. T. Briggs submitted the following conclusions regarding this subject at the American Surgical Association:

First.—The germ theory of wound infection is not established.

Second.—The antiseptic treatment of wounds after operations and injuries, is not limited to Listerism or any other special method, but is based upon broad general principles.

Third.—Antiseptic surgery embraces every condition or agent that tends to prevent putrefactive changes in wounds, or to remove or neutralize the evil effects of such changes when they have occurred.

Fourth.—All wounds are healed by reparative inflammation.

Fifth.—All wound accidents are the result, either directly or indirectly of destructive inflammation.

Sixth.—The antiseptic treatment of wounds, properly consid-

ered, consists, first, of such means as will restrain inflammatory action within reparative bounds; and second, of such means as will subdue excessive action, and remove, or neutralize the effects of destructive action.—[*Ibid.*

COMPOUND FRACTUTE OF BOTH ARMS.—Mr. E. Downes reports, in the *Lancet*, the following case which occurred in the Kashmir Mission Hospital: A boy, about fourteen years old, met with an accident by which both bones of both arms had been broken one and a half or two inches above the wrist. After receiving the injury he walked twenty miles and received no treatment for ten days. Upon entering the hospital the wounds on both arms were dirty and stinking. There were two wounds, one for each bone, and the right hand was swollen, and pus could be pressed up into the wound from the palm. The large blood vessels appeared uninjured. After the wounds had been cleansed the ends of the bones were sawn off and the limbs were put in bracketed splints, dressing the wounds with lint and carbolic oil. For two weeks the boy lived in great agony, opiates failing utterly to relieve his suffering. Finally improvement came; the discharge became more healthy, the hands looked more natural, pain diminished and appetite improved. After six weeks union was noted. From time to time it became necessary to slit up sinuses into which pus had burrowed. He was discharged after two months and a half; at this time the fingers of the right hand were not of much use and the left hand was somewhat stiff; he could, however, flex the hand and fingers; he could even hold a stick with his left hand, though the grasp was not firm. This case serves to show what can be accomplished by conservative surgery.—[*Medical and Surgical Reporter.*

A PAINFUL AFFECTION OF THE WRIST.—In the July number of the *New York Medical Journal and Obstetrical Review*, Dr. Edward H. Bradford, Surgeon to Out-Patients, Boston City Hospital, relates three cases of a painful affection of the wrist, the features of which were: pain referred to or most severe at the middle of the carpus; slight swelling; an absence of constitutional disturbance, and with no interference, or but partial interference, with motion of the articulation between the carpus and the radius and ulna. The symptoms were relieved by fixa-

tion, and recovery took place finally after a period of rest. Judging from analogy, Dr. Bradford remarks, it seems probable that the cases here reported were similar to a degree to a synovitis of the medio-tarsal joint, described by Gosselin under the term tarsalgia adolescentium; differing somewhat in their course from the fact that the wrist, a part easily immobilized from the first, and not the tarsus, was affected. Leaving out of account the smaller synovial membranes of the carpus—i. e., those between the pisiform bone and the cuneiform, the trapezium and the metacarpal bone of the thumb, the ulna and the fibro-cartilage at the joint—there are two large synovial sacs, viz., that between the main carpal bones and the radius and cartilage covering the ulna, and that between the main bones of the carpus, of which the os magnum is the larger and central bone. From the symptoms in the cases reported, the author thinks that the inflammation was one affecting this latter synovial sac, and limited to this alone, and that they may therefore be termed cases of synovitis of the carpus.

AN ANALYTICAL EXAMINATION OF ONE HUNDRED CASES OF EXTIRPATION OF THE KIDNEY.—Dr. Robert P. Harris has collected one hundred cases of nephrectomy which he has arranged in tabular form and subjected to critical analysis in the July number of the *American Journal of the Medical Sciences*. The relative value and safety of the abdominal and lumbar methods of operating cannot be ascertained from their respective results as shown in the table. Theoretically, the lumbar incision ought to be the safer, but much will depend upon the character of the case to be operated upon, and practicability often decides the question in favor of the abdominal incision. Where the kidney is but slightly enlarged, the costo-iliac space sufficient, and the gland moderately adherent, there can be no question that the lumbar method is safer and preferable; but in a large proportion of cases the abdominal section is the easier and safer of the two, by reason of the size and character of the tumor, and difficulties to be overcome in ligating its bloodvessels.

From the record of cases given, and their numerous mishaps it is evident that the operation of nephrectomy is still upon trial, both as to the best method of performance, and the diseased condition indicating the excision. With regard to some of the diseases of the kidney, we may say without hesitation, that the

operation is demanded, and promises well, both as to the prospect of recovery, and the permanence of relief obtained.

OBSTETRICS AND GYNÆCOLOGY.

PROLONGED GESTATION.—In a number of the *New York Medical Journal and Obstetrical Review* Dr. Louis A. Rodenstein, of New York, reports four cases of prolonged gestation, and remarks that the number of cases cited upon undoubted authority by every writer on obstetrics, and the cases constantly reported as occurring under the personal observation of general practitioners, go to show that prolonged gestation is not a myth, and especially that it should not be explained away by questioning the virtue of the mother. How long the duration of the period of gestation can extend beyond the normal time is not yet determined, perhaps cannot be determined, but that it may extend over two months is apparently settled. The same principle is involved, whether the uterus tolerates the presence of the child three days or one hundred and forty-five days (Professor Meig's "Report") after the natural term of gestation has expired. He believes that, after the uterus has performed its physiological function of gestation for the natural term, it rests from the work of gestation proper. Why does it not, then exercise the function of expulsion? That question he does not attempt to answer, but believes that after gestation has performed its proper and peculiar work the growth of the child is complete, and it thereafter lies dormant in the womb. Otherwise the child would grow to huge size, and its delivery in the natural way would be impossible; whereas in the cases cited the size of the child at the expiration of the period of prolonged gestation was normal.

OPHTHALMOLOGY.

INTRA-CRANIAL DISEASE AND CHOKED DISC.—Dr. Edward G. Loring contributes to the June number of the *New York Medical Journal and Obstetrical Review* an article on the nervous connection between the intra-cranial disease and choked disc, the conclusions of which are: 1. That the vaso-motor theory, as advanced by Benedikt, is not sufficient to explain either the mode of transmission of the morbid irritation within the head, or the resulting neuritis optica. 2. That the irritation is con-

veyed, not by the isolated fibres of the sympathetic system, by stated by Benedikt, but through the agency of the trigeminus. 3. That choked disc or papillitis, in connection with brain disease, is the expression of an irritation or compression of certain intra-cranial fibers of the fifth pair which preside over the blood supply of the disc and neighboring parts, and also maintain the healthy processes of waste and repair of the tissues themselves. This being so, he adds, the same analogies and distinctions between "irritation" and "inflammation" can be made here as with sympathetic ophthalmia, so that here, as well as there, the irritation may exist as such for an indefinite time, or may so reduce the vitality and resisting power of the tissue of the disc and surrounding parts as to develop gradually, or explode suddenly, into an actual inflammation—that is, into a neuritis. The immediate and exciting cause of the neuritis may then be either an external one, such as exposure to cold or heat, over-exertion, either mental or physical, or indeed, too much exposure to light, the effects of which, under the weakened condition of the organ, may be looked upon as a "traumatism"; or the exciting cause may be an internal one, such as some irritation from the condition of the blood and circulating fluids, either chemical or mechanical, either local or general, which, insufficient in itself to produce any bad effect upon a normal disc, may yet be just sufficient to produce a condition of inflammation in a part that is weakened and irritable.

CASE OF OBSTRUCTION OF THE INFERIOR CANALICULUS OF THE EYE BY DACRYOLITHS.—Concretions formed by the deposit of the saline elements of the tears are but rarely observed. In the *American Journal of Medical Sciences* for July, 1882, the case of a man aged forty-six is reported which came under the observation of Dr. Henry G. Cornwell, complaining of an interference with the escape of the tears from the left eye, which had annoyed him for ten years. An examination revealed lachrymal conjunctivis, the lachrymal punctum slightly everted, its orifice of normal size and the walls of the canal somewhat thickened. No accumulation of tears in, or any evidence of inflammation of the lachrymal sac. Suspecting a stricture of the canalicus this passage was slit up by means of a delicate pair of scissors, one blade of the instrument passihg readily through the canal without obstruction. On the following day on attempting

to separate the edges of the incision in order to prevent their union by means of Bowman's probe held vertically, the instrument struck a gritty substance which proved to be one of four dacryoliths which were arranged bead-like along the floor of the canal. The canal itself after their removal was found to be much enlarged as a result of this calcareous deposit.

INDUCED FLUORESCENCE IN THE EYE.—Ehrlich has made the curious observation that fluorescence can readily be communicated to the liquids of the eye (aqueous humor), in which the phenomenon is very conspicuous on account of the dark background. In his experiments he employed uranin, the ammoniacal compound of fluoresceïn. Two cubic centimetres of a twenty per cent. solution was injected beneath the skin of a rabbit, and after a few minutes the aqueous humor was let out by paracentesis. After from a quarter to half a minute an intensely luminous green tint was visible at the edge of the pupil; in a short time the color extended in the pupillary area, and in two or at most three minutes had filled the anterior chamber. This experiment shows that the anterior surface of the iris does not in any degree participate in the regeneration of the aqueous humor. According to Ulrich, a part of the transuded fluid comes from the vitreous (i. e., from the vessels of the choroid), and passes by the zonule of Zinn into the posterior chamber. Ehrlich's results are opposed to this assumption. If blood-serum is obtained at the same time, its tint is exactly the same as that of the transuded aqueous humor—a fact which makes it probable that the latter is a direct transudation from the blood. The rapidity with which the process goes on is all opposed to Ulrich's view, since within five minutes of the injection of the material the chamber is filled with the green liquid. In one animal, into which a considerable dose had been injected, Ehrlich observed the appearance of a pale-green line in the pupillary region, constantly vertical in direction, and corresponding in position to the greatest curvature of the cornea. A band developed out of this line, and this again into two striæ separated by a narrow dark zone. A short time after the line was distinctly visible, the cornea became separated into a medial and lateral dark zone, the division between the two being occupied by the green line. It is easy to demonstrate that the appearance of the line does not arise in the cornea, but in the

liquid in the anterior chamber, immediately behind the cornea. The vertical direction of the line is no doubt determined by the shape of the eye. Ehrlich is of opinion that the line must be regarded as the result of the meeting of two currents of secreted liquid. At the periphery of the iris there are two centres of secretion: an anterior, nasal; and a posterior, temporal. When both currents meet, the peculiar hue is produced. The normal secretion of the posterior chamber is distinguished from the aqueous humor by its deep green tint and a higher specific gravity. Under normal relations the secretion does not pass into the anterior chamber; but abnormal influences, such as paracentesis, cause it to do so. Ehrlich believes, therefore, that his experiments have disproved the theory of Ulrich, that both chambers are connected by a filtration current, which passes forwards through the roots of the iris and the ciliary processes. Each part is probably supplied from the bloodvessels. The chamber is not supplied from the whole circumference of the iris, but from special centres. The short time in which the liquid can be reproduced is also an argument against the possibility of a filtration current. These experiments show that the fluorescence can be very readily produced, and may supply the means of elucidating many physiological problems. One advantage of the method is that, being absolutely devoid of danger, it can be employed on human subjects. The internal administration of fifteen cubic centimetres of the above mentioned solution will suffice.—[*Lancet*.

MENTAL AND NERVOUS DISEASES.

POST-PARALYTIC CHOREA.—In a paper read at the recent meeting of the American Neurological Association by Dr. A. D. Rockwell, electro-therapeutist to the Woman's Hospital, New York, and published in the *New York Medical Journal and Obstetrical Review* for August, 1882, the author relates a case of post-paralytic chorea treated by the application of ether spray to the spine, the internal use of conium, and the employment of central galvanization. The patient was cured in ten weeks, although the affection was severe and of a year's duration. In regard to the efficacy of the ether spray the author is in doubt, but is inclined to regard it as of but little value. In two cases of chorea where the measure was exclusively attempted, in one instance for two, and in another for four weeks, there was but

little, if any, modification of the symptoms. Out of a very considerable number of cases of chorea that he has treated, both with and without the spray as an adjunct, the choreic symptoms have seemed to subside as readily in one instance as in the other. There has been, however, so much testimony to its value, and the operation is so easily performed by the friends of the patient at home, that he usually approves of its use. He has much more confidence in the efficacy of conium, but, in face of the numerous remedies, each one of which has at times been proclaimed to be the best, he hesitates to speak in very positive terms. As has been said of iron, zinc, arsenic, strychnia, etc., so perhaps it might be remarked of conium, that it is the readiness with which the ordinary case of chorea tends to recover, quite as much as the efficiency of the remedies, that has given them such repute in this condition. In the case related he began with five drop doses of the fluid extract thrice daily, adding a drop each day, until the dose reached twenty-five drops. He regards conium as occasionally of positive value in the treatment of chorea in its more chronic form, evident amelioration having followed its exclusive use in several of his cases. Although in the beginning the dose should be small, yet it should be pushed to a much higher point than is generally done. In regard to the value of electrical applications, he still holds the same favorable opinion as formerly, and, with added experience, claims the same position for it in its relation to this disease. And yet, he admits, there is much adverse testimony as to its value. He accounts for the unsatisfactory results obtained by some observers on the ground of a possible incompleteness of the methods of application, or a lack of persistency in the efforts made. Electro-therapeutical measures should be, to a large extent, matters of detail, and in few diseases is this attention to thoroughness of treatment more imperative than in chorea. Localized applications will not as a rule command success. General faradization and central galvanization he believes to be the essential methods of procedure; and these, when attempted, should be carried out with as much care and precision as other important processes. After thoroughly wetting the hair, his method is, in central galvanization, to apply to the head a sponge-cap electrode sufficiently large to cover almost its entire surface. The current is then gradually increased, without interruptions, to the point of easy endurance. In the case related he habitually made use of

thirty to thirty-six zinc-carbon cells, or, to speak more accurately, a current strength of about forty-five volts. He adds a caution against passing through the head of a child, or even that of an adult, a current of the same power without due precaution in regard to the *size* and *position* of the electrodes, and to the gradual increase and as gradual decrease of its strength. By attention to these points, however, much can be accomplished that would otherwise be impossible.

STATISTICS OF INSANITY IN THE UNITED STATES.—Dr. C. L. Dana gives (*Journal of Mental and Nervous Diseases*, April, 1882) the following statistics regarding the insane in this country: We had in 1880, in round numbers, 89,000 (to 96,000) insane, which gives a ratio of 1-570 (1-520) of the population. The census ratio in 1860 was 1-1,310; in 1870, 1-1,100; in 1875, 1-953. Our population increased in the decade 1870 to 1880 about 26 per cent., while our insane population has apparently increased over 100 per cent. As regards the *distribution of insanity* and of its *increase*, the proportion of insane is greatest in New England, where the ratio is 1 to 357. Here, however, the rate of increase is becoming slower. In proportionate number of insane, after the New England and Pacific States, come the Middle States (1 to 446), the Western (1 to 570), and then the Southern, (1 to 780). As regards the asylum accommodation: In 1881 we had 74 State and 14 private asylums, with a capacity aproximately for 31,900, but holding 39, 145. At a very low estimate, therefore, our asylums are overcrowded to the extent of 10,000 patients, while there are about 50,000 who are not in any asylums at all. Regarding the cost of asylums: We have about $40,000,000 invested in these institutions at an average cost of over half a million a piece. It takes about $8,000,000 a year to run them, or $82,000 for each institution, not including interest. If we should add interest the total annual expenditure for the insane amounts to $12,000,000. The annual cost per patient has been variously estimated at from $166 to $316.—[*Med. Record.*

EFFECTS OF IRRITATING THE ENCEPHALON.—At a recent meeting of the Paris Biological Society, M. Brown-Séquard communicated "some facts to show that the movements produced by irritating different parts of the encephalon are unlike those which ought to occur, in accordance with the accepted theories

concerning the cerebro-spinal motor and sensitive apparatuses." In 1879, Dr. Brown-Séquard published, in the *Archives de Physiologie*, the results of experiments which demonstrated that irritating the base of the encephalon determined movements of the limbs on the side corresponding to that on which the encephalon was irritated. If the medulla oblongatta be irritated, the above result is repeated nine times out of ten; but its frequency gradually lessens when the irritation is applied higher, that is to say, beginning at the medulla oblongata, and continued towards the corpus striatum. Dr. Brown-Séquard now adds further facts. Irritating the anterior pyramid determines movements of the limbs on the side of the body which corresponds to that irritated. Sometimes the movements are limited to one limb, the arm or the leg. He concludes that the nerve-elements, after passing to the opposite side of the spinal cord, return again, and thus produce the movements observed. Irritating the two surfaces presented by a transverse section of a lateral half of the base of the encephalon, results most generally in the occurrence of movements of one or both limbs on the corresponding side of the body.—[*British Med. Journal.*

THERAPEUTICS.

PERILS OF THE HOT-AIR BATH.—The hot-air bath, in all its varieties of construction and arrangement, is a powerful agent for the disturbance of the circulatory system. The change effected may be good, or it may be bad, for the subject; but it can scarcely be inoperative. The heart's action is quickened; the tension of the blood-pressure is at first heightened, and then —if copious perspiration takes place—it may be reduced. Speaking generally, there is a determination of the blood to the surface leaving the central and deep organs less fully supplied than before. In this way, doubtless, local congestions are occasionally relieved by the bath. Under ordinary circumstances, the change effected in the distribution of blood and pressure is likely to be beneficial, but if the heart be weak, or the larger vessels rigid, it may happen that faintness ensues. Then something is done either by the effusion of cold water on the extremities, or in one or more of several empirical ways, to drive the blood in again, and this endeavor may prove the last strain that throws the whole physico-vital apparatus of the circulation out of working order, and renders the continuance of the essential

functions of life difficult or even impossible. We believe the Turkish bath to be a most potent, and when rightly managed, useful agent for the control of the circulation; but it is necessary to warn the public against the reckless use made of it in cases the precise nature and peril of which are not understood. Except by the robust and thoroughly healthy, the hot-air bath should on no account be employed without express medical approval. Even this restriction is scarcely enough, because it may happen that the subject of a weak heart or abnormal blood-vessels regards himself as healthy, until the unaccustomed demand made on his organs of circulation by the bath discovers the weak place in his economy. It is not desirable to lay too much stress on those deaths which occasionally occur in, or after a visit to Turkish baths. They are accidents in the use of the agency, and as such must be regarded as significant. At the same time, it is desirable that the dangers of the bath should be more generally understood than they would seem to be, and that the proprietors of these establishments should be required to instruct their managers and attendants to send at once for medical assistance whenever a visitor becomes faint or momentarily unconscious. Such occurrences must needs portend peril of death; and, however large may be the proportion of instances in which the "slight faint feeling" or "sleepiness" passes away, it is manifest that a grave risk is in *all* cases incurred, and a responsible medical man should be instantly summoned to aid the recovery. There ought to be nothing left to the discretion of the manager or attendant in such a case. Again, although it is easy to see that proprietors would prefer to avoid deaths on their premises, no person who has been ill or even slightly unwell in the bath should be allowed to leave the establishment without being seen by a doctor. Further, we think the practice of *sleeping* in the hot rooms ought to be interdicted. There is always danger at the moment of awakening.—[*Lancet.*

THE ADMINISTRATION OF TANNIC ACID.—The influence of tannic acid on albuminuria cannot be denied. Even if we should not be able to prevent the progress of the disease to its fatal end, by reducing the quantity of urine, or by totally removing it, we stop, at least, a drain of the system, and may thus be able to prolong life by causing a cessation in the waste of albuminoid compounds. Of late, Dr. H. Ribbert, in Bonn, has made some

very important researches (*Cbl. f. d. Med. Wissensch*, 2, 1882) in this direction. He contends that we can undoubtedly reduce the amount of albumen excreted, and that our efforts will be crowned the more with success, the earlier in the disease the regular internal administration of tannic acid is commenced. He recommends large doses of sodium tannicum.

In connection with this Dr. Lewin (*Deutsche Med. Wochensch*, 6, 1881), has made some experiments to prevent the disagreeable effects of preparations of tannic acic on the mucous membrane of the alimentary canal. For this purpose he recommends the following prescriptions:

I. SODIUM TANNICUM.

℞ Solut. acidi tannici..... gr. xvi-xxc: f℥v.
Adde.,
Solut. sodii bicarb. q. s. ad react. alkalin.

SIG.—To be kept in a well-corked glass, and used within one or two days.

II. TANNICUM ALBUMINATUM.

℞ Solut. acidi tannici..... ℥ ss: f ℥ iij.
Adde., agitando,
Solut. albumin. ovi unius..... f ℥ iij.

Sig.—The greater the quantity of the tanic acid, the greater must be, in proportion, the amount of the white of the egg.

III. TANNIC. ALBUMINAT. ALKAL.

℞ Acid tannic..... ℥ ss–gr. lxxv.
Aquæ destillat..... f ℥ iij.
Adde agitando,
Albumin. ovi unius,
Sodii bicarb. solut. q. s. ad solut. limpida.

Sig.—Best adapted for a longer course of tannic acid.

Sugar in any form should be avoided in these preparations.—[*Med. and Surg. Reporter.*

PELLETIERINE, A RELIABLE REMEDY AGAINST TAPEWORM.—Mr. Tanret, of Troyes, the discoverer of pelletierine (the active principle of the bark of pomegranate root), has of late put this anthelmintic in such a palatable form that it is taken without repugnancy on the part of the patient. It is imported in liquid form, put up in small bottles (fifteen grammes each), the contents of one of which constitutes a dose for an adult.

No subsequent dietetic measure is necessary, only omitting supper and breakfast before the following day when the medicine is to be taken. It causes no discomfort to the patient, and

is quick in its action; in the last case the worm with its head was discharged one hour and a half after the cathartic was administered. It has, in my hands, proved to be the safest and most reliable remedy yet used against tapeworm.—[*Lancet and Clinic.*

EFFECTS OF MALARIA ON MAN.—In the Croonian Lectures, delivered this year by Sir Joseph Fayrer, the effects of malaria are described as follows:

In addition to the direct effects of malaria, a diathetic condition seems to be established which modifies other diseases. The effects of malaria are, indeed, most protean in form, not only in its own definite and well-marked pathological processes, but it stimulates others. The stupor of typhus, the collapse of cholera, the high temperature of isolation, the sickness of an irritant poison, epilepsy or of dentition, may occur in the pernicious forms. It induces anæmia and general cachexia, with structural changes in the liver, spleen, or other viscera, neuralgia, asthma, and various other symptoms of disturbed innervation and sanguinification, and it also appears to be in close etiological relation with dysentery, cholera, diarrhœa, beriberi, hydrocele, elephantiasis, bronchocele, and hepatic disease. Whatever its nature may be, its action on the human economy is very striking; it affects the central nervous system, causing disturbance of vasomotor action, paroxysms of fever, and congestion of the abdominal viscera, which may become periodic in recurrence, or pass on to structural changes in the liver and spleen, or intestinal mucous membrane. No one can have resided long in a malarious climate, such as Assam, without observing the cachectic, deteriorated aspect of the people, who, although they may never have had a single attack of fever, scarcely feel ill, and would resent being told so, are yet victims to the insidious action of the poison, add present evidences of anæmia, degenerate tissues and chronic visceral disease.—[*Medical Record.*

LARYNGOLOGY.

LARYNGEAL WHISTLING.—Dr. G. O. Roe reports the very interesting case of a young lady who possessed the power of whistling tunes with the larynx without the aid of the lips. The tune was perfectly produced in quite a low key, and sounded as if the young lady were at a distance. The following laryngoscopic

appearances were noted by Dr. Roe as she whistled "Yankee Doodle" in this manner. On producing the whistle, the vocal cords were drawn tense, and the chink of the glottis nearly closed. The ventricular bands were approximated and puckered up, leaving an elliptical opening in the centre through which the vocal cords could be seen with their thin edges vibrating. The contraction of the ventricular bands was assisted by the contraction of the thyro-ary-epiglotticus, as the epiglottis and arytenoid cartilages were more or less approximated; but, on producing high tones the arytenoid cartilages were drawn downward.

Thus it could be directly seen that the fundamental tones of the laryngeal whistle were produced by the vibrations of the edges of the vocal cords, the tone being modulated by the minute adjustment of the ventricular bands, which regulated the laryngeal opening above the cords.

In addition to the assistance of the ventricular bands in modulating the tone, they also pressed firmly down on the vocal cords, closed the ventricles, and acted as a damper in preventing the cords from vibrating except for about one-third of their length in the centre.

This young lady had also some ventriloquial powers. This led Dr. Roe to examine the larynx of a professional ventriloquist. He discovered that this gentleman produced the primary ventriloquial tones in precisely the same manner, that is, the larynx assumed exactly the same shape that the young lady's did while whistling. He was unable to produce a laryngeal whistle, but he told of two other ventriloquists who were able to whistle very loudly with the larynx alone, the mouth being closed, and who could give beautiful imitations of canaries, and other whistling birds.—[*Boston Medical and Surgical Journal.*

Reports on Recent Progress in Medicine.

Article XLIII.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Sulphide of Calcium as an Antisuppurative.—Dr. Andrew H. Smith, Chairman of the Commitee on Restoratives of the Therapeutical Society of New York, furnishes to the *New York Medical Journal and Obstetrical Review*, for June, 1882, a report of the committee on the use of sulphide of calcium for the purpose of preventing or diminishing suppuration. After giving the experience of several members of the society, Dr. Smith concludes his report as follows: Judging from this limited number of cases, it would seem that we are warranted in concluding that in many cases of suppurative affections, ranging from the small pustules of acne to extensive suppurating surfaces, an appreciable and often a very marked benefit is derived from the use of the calcium sulphide, suppuration which would otherwise take place being averted, or the quantity and duration of an existing discharge being lessened. At the same time its action is not uniform and in many apparently favorable cases it will fail entirely. The drug is somewhat prone to irritate the stomach, and this circumstance affords an indication for small doses frequently repeated instead of larger ones at longer intervals. One-tenth of a grain every two hours in acute cases will generally secure the full therapeutical action of the drug, but larger doses may sometimes be required, and some patients will bear well a grain three or four times a day. Even in small doses the sulphide will occasionally produce headache, and the patient is usually more or less annoyed by eructation of sulphuretted hydrogen.

The Abortive Treatment of Buboes with Carbolic Acid.—Dr. Morse K. Taylor, U. S. Army, in the April number of the *American Journal of the Medical Sciences*, publishes a paper on the abortive treatment of buboes by injections of carbolic acid.

He reports twenty cases in which he certainly obtained remarkably successful results, and he states that within the last seven years he has treated nearly one hundred and fifty cases of various forms of lymphadenitis, arising from specific and non-specific causes; and, where he saw the cases before the formation of pus was well established, he had not failed to arrest the process immediately, and allay the pain in a few minutes. His method is to inject from ten to forty minims of a solution containing eight of ten grains to the ounce, directly into the interior of the inflamed gland.

TREATMENT OF SCARS OF THE FACE.—We read in the *Medical and Surgical Reporter* of July 22, 1882, that a most important branch of cosmetic surgery is treated by Dr. C. L. Bull, of New York, in a reprint from the Ophthalmological Society. He says: "Persistent rubbing and kneading of scars of the face, both those due to burns and those resulting from bone caries, as preparatory to blepharoplasty, have, in a number of instances in the writer's experience, yielded most excellent results. Adhesions of scars, slight or extensive, to the subjacent parts, have been slowly, cautiously and painlessly detached, and a gradual absorption of the firm material in the dense part of the scar has been brought about. So considerable has been the result obtained in some cases, that the writer has come to regard this gradual extension and loosening as an important part of the treatment in these cases." When we reflect on the amount of mental misery these scars often cause, their removal becomes an object of great importance, not only from a cosmetic point of view, but often as a measure to relieve parts from the tension produced by the contraction of cicatricial tissue.

INOCULATION OF LEPROSY.—The *British Medical Journal* says that a recent number of Virchow's *Arichiv* contains an account by Prof. Köbner, of Berlin, of attempts made to inoculate leprosy on animals. The results were negative, but still the experiments possess some interest. They confirmed the investigations already made concerning the bacillus of leprosy. He not only found the organisms in fresh juice from the tubercles, but he also found it in preparations that had been many years in alcohol. While these experiments demonstrate nothing positive further than a corroboration of the causative agent of leprosy, yet they at least

constitute one more step toward the elucidation of the nature of this terrible disease.

AN ALLIED FORM OF PITYRIASIS RUBRA.—Dr. Halsey J. Wood details in the New York *Medical Record*, June 10, 1882, a case which seems closely allied to pityriasis rubra, which, as usually described, is a universal dermatitis of sudden origin, whose essential features are its occurrence in previously healthy persons, its tendency to become universal, its non-amenability to treatment and its tendency to spontaneous cure. The universality of the dermatitis is regarded as typical of the affection. It is, however, not always universal. Dr. Stephen MacKenzie has seen a case of pityriasis rubra that was *white!*

The case presented differs from pityriasis rubra, in the fact that there is deep pigmentation of the epidermis prior to exfoliation, co-extensive with the dermatitis. Other general features were the well-marked character of the dermatitis, the absence of general constitutional disturbance, save as explained by the dermatitis; the fact that the mucous surfaces entirely escaped; the absence at all stages and in all parts of any tendency to eczematous inflammation, and the entire absence of deposit in the skin or of thickening.

The treatment was of a supporting and mildly stimulating character; largely symptomatic and "expectant," arsenic was not well borne, and was soon discontinued. Quinine and iron were given throughout the attack, and were apparently of benefit; it did not, however, appear that anything that was given affected the course or severity of the disease.

TREATMENT OF SYPHILIS BY SUBCUTANEOUS SUBLIMATE INJECTIONS.—Dr. John V. Shoemaker read a paper on the above subject before the section on the Practice of Medicine of the American Medical Association (*Med. and Surg. Reporter*, July 15, 1882.) and he recommended this method because his results have been so good. The formula he uses is,

℞ Corrosive Sublimate..... 1 part.
Distilled water.....100 parts.

beginning with ten minim doses.

From the experiments he has made, his conclusions for its use are:

1. The *accuracy* and *precision* of the dose. By the stomach

corrosive sublimate changes into an insoluble albuminous precipitate, and does not remain long enough in the body to become absorbed, and hence much of it is lost; so, no matter how precise you may be in administering the drug by the mouth, it is almost certain that some of it passes away unabsorbed. By the hypodermic method this is entirely done away with, the precise dose is taken up by the absorbents into the system, and after its object has been attained, is eliminated through the proper channels.

2. By its use we *preserve* the healthful action of the stomach and bowels; the internal action of the drug on the organs, he has already mentioned.

3. Its *use*. That we may use it in most all cases, in fact, in all, without any baneful results, is conclusive to its application.

In conclusion, he related some of the reasons which render the method distasteful to many physicians:

A dirty syringe or a rusty needle produces inflammation, and an abandonment of the method by one. A short needle or a failure to drive it into the cellular tissue has caused an abscess, and non-success to another. The failure to scatter the solution when injected, or to force out the air in the needle, gives pain to the patient and discourages a third. The building up the system with tonics and good food, and the use of the sublimate at the same time, has been overlooked by the fourth and the results drop below his expectations. The peculiar susceptibility of some persons to certain drugs in very small doses, are lost sight of, the mercury suddenly poisoning the patient, and the physician condemns the method, and so on, *ad infinitum*.

Such are a few of the reasons why this potent and valuable remedy has failed in the hands of some of the American practitioners. It is not with haste that such methods can be tried and rejected, but one must take time and trouble, and study each phase of its peculiarity, and then with certainty adopt his decision.

GONORRHŒA OF THE RECTUM.—Dr. Morris reports in the *Maryland Medical Journal*, a case of gonorrhœa of the rectum, occuring in a lady. The symptoms are pain, spasmodic contraction, formication, etc. The treatment was energetic and consisted in the thorough application of nitrate of silver to the everted mucous membrane. The author *naïvely* states that the condition did not arise from unnatural practices. We are a little curious to know

to what cause the charitable doctor wishes to attribute such an effect. If gonorrhœa is a specific infection there must be a specific cause which, unfortunately has not been specified.

GELSEMIUM IN RHUS POISONING.—The number of remedies that have been recommended for this poisoning will soon compete with those given in many diseases whose names we refrain from mentioning as they are too well known to be specified here. Dr. Ben. Edson, of Brooklyn, (New York *Medical Record*, July 29, 1882) having used gelsemium for some years for pruritic troubles with satisfaction, thought that he would try it in rhus poisoning, to alleviate the pain. He extemporized a wash in about the following proportions:

℞ Acid Carbolic.....ʒss.
Ext. Gelsum fluidi.....ʒij.
Glycerinæ.....ʒss.
Aquæ.....ad. ʒiv.
M

Cloths were kept moist with this and applied to the affected parts; internally two minims of the fluid extract were given every three hours.

Within thirty-six hours the disease appeared to be effectually "killed." The progress to complete recovery was direct and rapid in the first case in which it was tried. Subsequent cases were treated in essentially the same manner, with the exception of two, in which carbolic acid was not used, and these yielded no less promptly than the others.

LUPUS ERYTHEMATOSUS.—Dr. W. T. Alexander has translated in the *Archives of Dermatology*, April, 1882, an excellent article on this subject read upon the International Medical Congress by Dr. H. Veiel, of Canstatt, Germany. The following are the conclusions of the paper:

1. Lupus erythematosus is an independent disease and not a form of lupus vulgaris.

2. A connection between lupus erythematosus and scrofulosis, tuberculosis and syphilis cannot be established.

3. The affection of the sebaceous or sweat-glands is an accidental accessary phenomenon. The essential nature of lupus erythematosus consists in the pathological alterations which are found along the course of the bloodvessels.

4. No remedy has as yet been discovered, the internal use of which produces a cure of lupus erythematosus.

5. The most efficient local remedy for lupus erythematosus is multiple scarification in connection with subsequent cauterization with chloride of zinc.

LUPUS-PSORIASIS.—Before the Clinical Society of London, May 26, (*Med. Press and Circular*), Dr. Stephen Mackenzie reported the following case:

The subject of the eruption was a lad aged nineteen. There was no history elicited of struma or of skin-diseases in his family. The disease began in his face three years ago, and was confined to this position until nine months before he came under observation. It then spread to the forearms, and gradually involved the upper arms, the trunk, and lower extremities. The patient was well nourished, free from any sign of glandular enlargement, visceral or bone disease. When he came under observation his face presented the characteristic appearance of lupus vulgaris. In addition to this, however, on the upper part of the chest in front, between the shoulders, over the lower part of the back, and symmetrically distributed on the outer aspects of the arms and forearms, on both buttocks, thighs, and legs, were disks having depressed centers and a few fine scales intermixed with dull red scars. The skin of the extremities of the fingers was red, rough, and cracked, and there were a few papules on the dorsa of the feet. The patient under one-dram doses of citrate of potash, and, later, iodide of iron with arsenic, improved somewhat; but perionychitis became troublesome, and led to erysipelas of the right arm. The attack was severe, but the patient made a satisfactory recovery, and the eruption continued to improve. Later, when the treatment of the case concluded, a good deal of the active eruption had subsided from the trunk and extremities, leaving scars in the positions in which it had occurred. His general health was good. The points to which attention was directed were: That the eruption on the face was characteristically lupus; that the eruption on the trunk resembled psoriasis in its scaly appearance and symmetrical distribution, but, unlike psoriasis, and like lupus it left scars. Hence, the name "lupus-psoriasis" given to the conditions by Mr. Hutchinson seemed appropriate in characterizing its nature and distribution. The condition is a rare one, and, as far as the author was aware, was

only described by Mr. Hutchinson. A sister of the patient, who has slight but well-marked psoriasis, has since been seen. This brings the lupus element of the case into closer alliance with psoriasis as regards its essential nature, as well as its appearance.

THE MAN SNAKE.—In the village of Cuantla, Mexico, says a recent number of *La Independencia America*, belonging to the Canton of Antlan, lives an individual whose scaly skin is in every way like that of the rattlesnake, even to the greenish color; possessing, besides the property of changing his skin every autumn; such phenomenon being accomplished all at once, and not by parts, so that the entire body is left like what is vulgarly called *Tuwon*, (a smooth leather bag, flesh side out), and not even a single hair is left. A sister of this individual who died a short time ago, manifested the same phenomena and became gradually blind, for the new skin went on covering the eye-lids together in a circular form, until the eyes themselves were covered. The same thing is happening to the man who is living, who has already some small circles, that only permit him with difficulty to see and distinguish surrounding objects. Thus he presents the repugnant figure of the head of a rattlesnake. In Cuantla, these unfortunate people are known by the name of "rattlesnake man and woman," and their appearance is attributed to the fact that their mother had eaten too much rattlesnake to cure herself of a disease of the blood. [Rupia, most likely, *Translator.*] Whatever the phenomenon may be, it is worthy of study. Would that the man could be induced to come to this capital (the city of Mexico), in order that his disease might be studied by the members of the professsion!—[*Canada Journal Medical Sciences.*

EFFECTS OF EXCISION OF SYPHILITIC CHANCRE.—M. Mauriac reports (*Gazette des Hôpitaux*, 1881, No. 7, 10, 14) seven carefully recorded cases in which he excised the initial lesion of syphilis. In six, excision was performed at periods varying from four to sixteen or eighteen days of the appearance of the sore. In the seventh case, the initial lesion was excised about fifty hours after it had been first noticed, and before there was the least trace of glandular enlargement, but in this, as well as in all the others, the operation was unsuccessful in preventing further development of the disease.—[*London Med. Jour.*

Book Reviews.

Article XLIV.

A Study of the Tumors of the Bladder, with Original Contributions and Drawings. By Alex. W. Stein, M. D., 8vo. pp. 94. (New York: William Wood & Co., 1881.)

This is a very interesting, and, at the same time, important monograph on the subject of tumors of bladder. Vesical neoplasia have not enlisted that attention and research which they deserve, probably from the fact that they are comparatively of less frequent occurrence than those of other sites and partly because not so accessible or diagnosed with as great facility. The author having had four cases, turned his attention to the subject and looked up all the literature he could avail himself of, and has succeeded in presenting us with a very readable essay.

He begins with a bibliography of the subject from 1747 to 1881 inclusive, and in which we find 154 papers and books mentioned which is rather a small showing for such a long period and would lead one to suppose that the bibliography is not quite as complete as it might be.

Classification of Tumors is considered and is followed by Symptomatology, Diagnosis and Treatment. The illustrations are for the most part good, a few being original. He closes his book with a few conclusions which are as follows:

1. In a few remarkable instances in the case of women, apparent recovery seems to have resulted from a spontaneous expulsion of growths from the bladder. But in general it may be said that tumors of the bladder, if uninterfered with, are inevitably fatal. And, although they may exist for several years without creating much distress, a fatal termination almost invariably ensues in a few weeks or months from the outbreak of active symptoms.

2. Death results most frequently from hemorrhage, and from the effects of mechanical obstruction to the outflow of urine. Hence the indication would be to remove the growth while the general condition is yet favorable for an operation; before the subject has become exhausted from loss of blood, or the kidneys and bladder have become so much diseased as to make recovery impossible, even in the event of the successful extirpation of the growth.

3. In women, because of the accessibility of the bladder to

direct exploration, there is no excuse for temporizing, and the surgeon should lose no time in acquiring an exact knowledge as to the existence, nature, etc., of the tumor, and, if practicable, attempt its removal as early as possible.

4. The results thus far attained by surgical interference, in the cases of women, could scarcely be more satisfactory, and excepting one instance in which the bladder was accidentally perforated, it does not appear that the fatal termination was precipitated by the operation in any of the cases.

5. In the male, the propriety of operative interference must necessarily always be a more serious question; because of the occasional uncertainty of diagnosis, and because of the gravity of the undertaking necessary for the removal of the growth. Nevertheless, the results thus far attained by operation, are most encouraging and in every way justify a repetition of the same.

6. From a number of autopsies made, we learn that the successful operations might have been multiplied first in those cases in which no operation was attempted, although the growths could have been easily removed and with apparently every prospect of success; and again in those in which the operation was too long deferred and which, it is reasonable to assume, would have terminated successfully, had the same been undertaken at an earlier period.

7. Given a positive diagnosis of tumor, the absence of severe secondary symptoms should be no excuse for deferring the operation. On the contrary, the earlier the growth is removed the better the prospects of complete recovery. With a healthy bladder and kidney, cystotomy is not so dangerous an operation as to warrant any delay.

8. Evidence strongly pointing to the existence of a tumor with severe catarrhal symptoms or with spasm of the bladdea and much suffering, will often justify an operation; for, if r tumor is found, its extirpation will afford the only chance for life; and if no growth exists, or the bladder is occupied by an irremovable cancer, the cystotomy may at least afford temporary relief from suffering.

THE SYMPATHETIC DISEASES OF THE EYE. By LUDWIG MAUTHNER, M. D. Translated from the German. By WARREN WEBSTER, M. D. 12mo., pp. 220. (New York: Wm. Wood & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

This is a part of a treatise on the eye and includes merely, as its name indicates, the sympathetic diseases. He defines them as follows:

"Those diseases, therefore, which are superinduced in the *second* eye, upon an injury or disease, of the *first* eye, and which can be traced to *no other cause than the original injury or disease*, are regarded as *sympathetic diseases*."

Devoting a few pages to anatomy he considers the etiology in a very interesting manner and holding but very little hope of an escape of sympathetic disease even after the causative trouble may have disappeared. The pathology, pathogeny and therapeutics are considered in regular order, and in the last, he does not favor enucleation as strongly as many other oculists would have us do. He believes that it could be dispensed with, and safely, in very many cases where it has been performed by good ophthalmologists.

As to optico-ciliary neurotomy he regards it as an entirely useless operation, or at least, of so little apparent benefit that it ought not to take much of a rank as a therapeutic measure.

The book is a very valuable one for the general practitioner, who often meets with cases that are puzzling and it is an excellent guide and if carefully read may yet save many a useful eye, thoughtlessly sacrificed to a groundless fear.

FROZEN SECTIONS OF A CHILD. By THOMAS DWIGHT, M. D. Fifteen Drawings from Nature. By H. P. QUINCY, M. D. pp. 66. (New York: Wm. Wood & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

This is indeed a most valuable contribution to anatomy and can be studied with profit. The plates number fifteen and are very clear and well drawn. The subject was the body of a girl said to be three years old and having a length of thirty-three inches. The first section passes through the neck and so on down until the last section passes through the trochanters of the femurs.

Each plate is accompanied by explanatory text wherein are pointed out the peculiarities of the sections and also the particulars in which they differ from the same in the adult.

We cannot but express the feelings of all who have seen this work in saying that it is an honor to its author and a cause of congratulation to the publishers. It is a rare thing to have American works of this character and on that account we take a double pride in it.

It is a most valuable guide in respect to the anatomy of relations and one glance at a plate is more valuable in this regard than hours spent over pages of text.

We heartily commend this to the consideration of all students and teachers of anatomy as a practical and useful guide.

A MANUAL OF ORGANIC MATERIA MEDICA. Being a guide to Materia of Medica of the Vegetable and Animal Kingdoms. For the Use of Students, Druggists, Pharmacists and Physicians. By JOHN M. MAISCH, Phar. D., with many Illustrations

on wood. 12mo. pp. 459. (Phila.: Henry C. Lea's Son & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

We could not expect anything but a good book from the pen of the esteemed editor of the *American Journal of Pharmacy* and we are not disappointed, for this is a very good little hand-book adorned with handsome illustrations. The author is a teacher of this branch and has adapted this to his scholars and done so in a very successful manner.

The nomenclature is good and simple and although some imperfections might be detected, it is convenient and capable of practical application. A great many drugs of the British pharmacopœa besides many old but now unofficinal drugs are considered as well as many new ones. To students of pharmacy this book will prove an invaluable reference and may also be read with profit by those pursuing medical studies.

DISEASES OF WOMEN: including their Pathology, Causation, Symptoms, Diagnosis and Treatment. A Manual for Students and Practitioners. By ARTHUR W. EDIS, M. D., Lond. F. R. C. P., M. R. C. S., with 168 illustrations. 8vo. pp. 576. (Phila.: Henry C. Lea's Son & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

This is a handsome edition of a work that has proven quite instrumental in making its author known in connection with gynæcology. The author has endeavored to condense "all that has stood the test of time and experience in this specialty" and acknowledges it to have been a most difficult task. He has done his work well, although he seems at times to give undue prominence to certain subjects.

The subject of displacements of the uterus and pessaries are considered at some length and yet many good pessaries are not even mentioned. It is not necessary here to particularize.

Abdominal tumors are dealt with exhaustively with particular reference to their diagnosis, as the author considers them as offering great difficulty to the student.

Functional disorders of the uterus are also considered at some length and from a clinical aspect so that they will be fully appreciated by the attentive reader and student.

This is an excellent treatise on the subject of female diseases although it cannot hold its place with Thomas or Emmett; still there are many good points about it which make it deserving of following very closely upon the others' footsteps.

NERVOUS DISEASES; THEIR DESCRIPTION AND TREATMENT. A Manual for Students and Practitioners of Medicine. By ALLAN MCLANE HAMILTON, M. D. Second Edition, Revised

and Enlarged, with seventy-two illustrations. 8vo., pp. 598. (Phila.: Henry C. Lea's Son & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

Hamilton's treatise on nervous diseases has long since been regarded as a classical work and it certainly deserves to hold first rank among works devoted to the diseases of the cerebro-spinal system. The present edition has been considerably enlarged, the classification formerly adopted being still adhered to. After an introductory the author first considers the diseases of the cerebral meninges, next considering those of the cerebrum and cerebellum. Diseases of the spinal meninges and of the spinal cord are treated of and then bulbar diseases. Cerebro-spinal diseases then engage the authors' attention, the work concluding with diseases of the peripheral nerves.

Insanity is not considered at all, the author justly deeming the subject of too vast a scope to be included in the present work.

Some new terms are introduced, among these being asemasia as a more proper term than aphasia, being from its derivation of wider application.

Quite a number of illustrations are found in this edition, they being chiefly of foreign source of the highest authority.

We regret to find that some affections of the peripheral nerves manifested by skin lesions are entirely omitted. Herpes zoster is admitted as the symptom of a peripheral nerve lesion and is sufficiently chrracteristic to merit at least the mention that the author accords to "hang-nails" and cracking of the skin.

HOME AND CLIMATIC TREATMENT OF PULMONARY CONSUMPTION ON the Basis of Modern Therapeutics. By J. HILGARD TYNDALL, M. D. 12mo., pp. 174. (New York: Bermingham & Co., 1882.) Price fifty cents.

The author begins with the pathology of "consumption" which term he says "comprises all progressively destructive processes of the respiratory organs which do not occur successively and rapidly in the train of acute inflammations of the lung." Next are considered treatment in general, home treatment and climatic treatment.

The future path to be pursued in therapeutics he considers to be "to endeavor to bring nutrition to the highest point attainable, and retain it there long enough to enable us to pursue a *systematic course of antiseptic treatment of the general condition, laboring under chronic septicæmia, as well as of the local lesion.*"

In regard to climatic treatment he states that to go to a cold, dry climate, the patient must be free from disease down to the clavicle, must have no catarrh of the upper respiratory passages.

An ideal climate should be dry with a certain equability of temperature, *i. e.* it should be an *aseptic climate.*

The book is good and will repay a careful perusal.

OPIUM SMOKING IN AMERICA AND CHINA. A Study of its Prevalence and Effects, immediate and remote, in the Individual and the Nation. By H. A. KANE, M. D., 24mo. pp. 156. (New York: G. P. Putnam's Sons, 1882. St. Louis: Hugh R. Hildreth Printing Co.) Price $1.00.

Dr. Kane has been so long identified with opium, that nothing but a reliable account could be expected of him and this he has given us in this small history of opium smoking. He states that smoking is not nearly so injurious as eating opium, but that it is morally as bad there can be no question, the only difference being in degree rather than in kind.

He states that "the opium-smoking habit, contrary to the general belief, when undertaken on scientific principles, can be rapidly, painlessly and safely cured. * * * All the symptoms heretofore considered dangerous and distressing can now be easily and effectually met, nay, even anticipated."

The picture that he gives us of the increase of the habit in this country is appalling and no measures adopted can be stringent enough to break up a vice that seems to be about to attack the very vitals of our country, in dragging the young within its baneful influence.

Books and Pamphlets Received.

Article XXXII.

Transactions of the American Gynecological Society, Vol. VI. For the year 1881, 8vo., pp. 542. (Phila.: Henry C. Lea's Son & Co. 1882.)

A Treatise on the Physiological and Therapeutic Action of the Sulphate of Quinine. By Otis Frederick Manson, M. D. 12mo., pp. 164. (Phila: J. P. Lipincott & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.) Price $1.00

The Medical Digest or Busy Practitioner's Vade-Mecum. Being a means of readily acquiring Information upon the Principal Contributions to Medical Science during the last thirty-five years. By Richard Neale, M. D., London. Second Edition, 8vo., pp. 643-lxxxii. (London Ledger, Smith & Co., 1882.)

A Rational Materialistic Definition of Insanity and Imbecility, with the Medical Jurisprudence of Legal Criminality, founded upon Physiological, Psychological and Clinical Observations. By Henry Howard, M. R. C. S., Eng. 8vo., pp. 145. (Montreal: Dawson Bros., 1882.)

Transactions of the Michigan State Society for the year 1882. No. II., Vol. VIII., 8vo., pp. 284. (Lansing: W. S. George & Co., Printers, 1882.)

What to do in cases of Poisoning. By William Morrell, M. D., M. R. C. P. Second Edition, 32mo., pp. 96. (Detroit, Mich.: Geo. S. Davis, Publisher, 1882.)

Proceedings of the Seventh Annual Session of the Southern Illinois Medical Association, held at Carbondale, Ill., on May 17 and 18, 1882.

Paul Broca and the French School of Anthropology. By Robert Fletcher. A lecture delivered in the National Museum, Washington, D. C., April 15, 1882. Published and Sold by Judd and Detweiler, Price 10 cts.

Diphtheritic Ulceration of the Air Passages and its Relation to Pulmonary Phthisis. By John N. Mackenzie, M. D. (Reprint from the Transactions of the Medical and Chirurgical Faculty of the State of Maryland, April, 1882.)

Forty-Second Annual Announcement and Catalogue of the Missouri Medical College, 1882–3.

First Annual Announcement of the College of Physicians and Surgeons of Iowa, at Des Moines.

Fourteenth Annual Announcement of the Kansas City Medical College, (late College of Physicians and Surgeons). Session 1882–83.

Sixth Annual Announcement of the St. Joseph Medical College, Session 1882–83.

Michigan College of Medicine, Announcement for Session of 1882–83.

The Change of Life in health and Disease. A Clinical Treatise on the Diseases of the Ganglionic Nervous System incidental to Women at the Decline of Life. By Edward John Tilt, M. D. Fourth Edition, 8vo., pp. 184. (Phila: P. Blakiston & Co., 1882.) Cloth $1.25, paper 75 cts.

Report of two Cases of Sapremia. By P. V. Schenck, M. D. (Reprint from the *St. Louis Courier of Medicine*, June, 1882.)

Treatment of Consumption indicated by the Discoveries of Koch and Others, of its Parasitic Origin. By M. L. James, M. D. (Reprint from *Virginia Medical Monthly*, May, 1882.)

Medical College of Virginia, Richmond, Announcement of the Session 1882–83.

The Columbus Medical College Imbroglio. A Reply to certain Widely-Circulated Mis-Statements and Slanders. (Supplement to *Columbus Medical ournal.*)

An Old System and a New Science. By F. E. Stewart, Ph. G., M. D.

The Presence of the Micrococens in the blood of Malignant measles: Its Importance in Treatment. By John M. Keating M. D. (Reprinted from the *Phila. Med. Times*, Aug. 12, 1882.)

Fifth Announcement of the United States Medical College in the city of New York, Session 1882-83.

News Items.

Article XLVI.

The St. Louis Medical Society will resume its meetings commencing Saturday evening, Sept. 16.

The *Ohio Medical Journal* has changed its name to *Columbus Medical Journal*, retaining the same editors and publishers.

The American Dermatological Association held its Sixth Annual Meeting at Newport, R. I., on Aug. 30th and 31st, and Sept. 1st.

To Disguise the Odor of Iodoform—A Philadelphian directs his patients to spread some of the ointment on a piece of muslin and bandage a finger with it. The stuff will smell just as strong as before, but the patient will be able to assume a virtue, if he has it not, and to comply with the Biblical injunction—to "avoid even the appearance of evil."—[*Columbus Med. Journal.*

A New Antipyretic.—Macalline, an alkaloid obtained from the bark of the macalla, a tree which grows in Yucatan, is recommended by Dr. Rosado as superior to quinine in the treatment of intermittent and remittent fevers.

Prof. William H. Mussey, late of Cincinnati, died lately in that city and his loss is keenly felt by all the profession there.

Dr. Abram S. Heaton, Professor of Clinical Medicine in Detroit Medical College, died at his residence in Detroit, July 9, in the fifty-fourth year of his age, and thirty-third of his practice.

The *Chicago Medical Review* will, in the future, pay its contributers in all its departments. Charles H. Lader is associate editor.

THE *Sanitary News* has changed its name to *Clinical Brief and Sanitary News*; it is also considerably enlarged.

IODOFORM is soluble in the following essential oils in the various ratios given:

In Oil of	Turpentine	4 per cent.
"	Lavender	7 "
"	Cloves	8 "
"	Fennel	9 "
"	Lemon	9 "
"	Rosemary	14 "
"	Cinnamon	14 "
"	Caraway	16 "

A FEMALE Opium-eater in London, (says Dr. Williams,) had but four passages from the bowels in one year.—[*American Medical Bi-Weekly.* We are glad she lives in London.—[*Medical Record.* No doubt she would raise Kane in New York.

DR. Molson has resigned the associate editorship of the *Canada Medical and Surgical Journal*, and Dr. Roddick, of the McGill University, will in future do the editorial work in conjunction with Dr. Geo. Ross.

A STEP BACKWARD.—In the English House of Commons, on February 7th, notices were given of the intended introduction of the following bills: 1. Abolishing the compulsory clauses of the vaccination acts; 2. For the total abolition of vivisection; 3. For the repeal of the Contagious Diseases Act.

A NEW SIGN OF STERILITY.—A Chicago professor stated in a lecture that he had noticed that in sterile women the hair on the Mons Veneris was always straight. The professor was rather surprised by the inquiry of a student, whether curling of the hair would cure sterility? *Fact.*—[*Ibid.*

"ST. JACOB'S OIL" appears to be a feeble and badly made aconite liniment, and it consists mainly of water, ether, alcohol, turpentines and a small portion of aconite with red coloring matter. Its whole function is to make money for the enterprising merchants who own it, and in this it is by no means a delusion or

a snare.—[*Squibb's Ephemeris of Materia Medica, Pharmacy, etc.*

A CENTURY OF A PROFESSORSHIP.—The professorship of anatomy, now held by Dr. Oliver Wendell Holmes, was established in 1782, when the Harvard Medical School was founded. The position was first filled by Dr. John Warren, who was succeeded by his son, Dr. John Collins Warren; and, 1847, Dr. Holmes assumed its duties, upon the resignation of Dr. Warren. There is no other institution in the country where for a century a professorship has been held by only three men.

TOO MUCH WRITING IN PRIMARY SCHOOLS.—A correspondent of the *Journal of Education* says: "Excessive writing in the primary grade is misshaping the fingers of the children. Children have gone home to their parents complaining of pain, and it looks now as though the physician will soon be interested in primary-school methods. Perhaps a critical survey might see sources of danger to the eyes and other parts of the body. Certainly any method, or any labor asked of a young child, which produces malformation or injures any organ of the body, ought never to be installed in a school-room as a thing to be worshipped."

BY the addition of chloral hydrate in the proportion of an ounce and a half to the pint of tincture of iodine, the solution may be diluted with water *ad libitum*. The liquid is of a golden yellow color and peculiar odor. It coagulated albumen immediately, and has marked hemostatic, antiseptic and narcotic properties.—[*Louisville Med. News.*

THE WATER OF THE DEAD SEA.—Dieulafait found in one cubic centimetre of Dead Sea water enough lithia to show the spectrum of this substance at least a thousand times. The same water contains also so much boracic acid that it can be practically recognized in the residue from a single cubic centimetre of the water. Hence he infers that the present waters of the Dead Sea are the residues of the evaporation of an inland sea analogous to the Caspian or Kara Boghaz.—[*Medical Record.*

THE VOLUNTARY DISLOCATIONS OF A CONTORTIONIST.—Dr. Edmund Owens has furnished (*British Medical Journal*, May 6, 1882) an interesting account of the remarkable feats accomplished by Warren, the American contortionist, whose marvelous facility in effecting dislocations, was once described by Dr. F. H. Hamil-

ton. It appears that Warren is now thirty-four years of age, and possesses a most excellent physique, his muscular system having reached a rare grade of development. Being, as a child, subject to spontaneous luxations of the hip, he found himself able to rectify the mal-positions by his own personal exertions. Hence the origin of his efforts in this line. Now he has secured for himself control over certain isolated muscles, which usually are seen to act in concert. The following can thus be contracted individually: the biceps, supinator longus, radial extensors, sartorius, and platysma. But the most astonishing act is undoubtedly the one of which mention has already been made, viz., the dislocation of either hip-joint by personal muscular action. These deformities present all the features seen in Sir Astley Cooper's illustrations, except that the toes of the affected side do not necessarily preserve their classical relations to the opposite foot. Interesting as it would be, it is impossible to study out in detail the order of muscular movements over the course taken by the head of the bone in assuming its false position. But when accomplished, the summit of the great trochanter is at least one and a half inches above Nélaton's line, the cavity of the acetabulum is empty, and the head has travelled upward and backward. Among Warren's other accomplishments, he posseses the power of so contracting the abdominal muscles as to flatten the belly and thus define the aorta through the abdominal walls; or he can produce a phantom tumor by withdrawing the intestinal coils into the grasp of the rectus and oblique muscles. The tumor so produced is dull on percussion, and might even invite exploratory puncture.—[*Med. Record.*

MICROSCOPICAL APPEARANCE OF GUITEAU'S BRAIN.—Dear Sir: We submit an account of the microscopical appearance of portions of Guiteau's brain. As will be seen, nothing which we can regard as important, bearing upon his mental condition, was found. Further, minute research and description would, we believe, be of interest only as a scientific record of the appearances of a historic organ.

Pieces of brain from the left frontal lobe, the right central convolution, the cerebellum, and a piece of the spinal cord just below the medulla, were obtained about five hours after death, and three and a half after the opening of the cranium. These pieces were placed in seventy per cent. alcohol for twenty-four

hours, then in absolute alcohol until sufficiently hard to cut.

Over one hundred sections were made and stained in various fluids, chiefly in Bismark brown, carmine, and hæmatoxylon. Sections were also stained in osmic acid, aniline blue, Lugol's solution, vesuvin, etc. Other sections were soaked in ether, and in concentrated acetic acid.

These various methods were employed chiefly in order to determine positively the nature of certain peculiar bodies seen under the microscope. They were quite numerous, but were mostly in the white matter. They were generally round in shape, but sometimes appeared in agglutinated masses. They were somewhat translucent and measured from $\frac{1}{170}$ to $\frac{1}{100}$ inch in diameter. Some perhaps were smaller. They had the appearance of not being incorporated in the brain-tissue itself. They stained with Bismark brown, vesuvin, and gave a rose-red color with aniline blue—this being usually a test for amyloid matter. But they were not stained with iodine, even after soaking sections twenty-four hours in water to remove the alcohol. They were not dissolved by soaking sections half an hour in ether, and they were not stained by osmic acid. Hence, they were apparently not fat. They were not dissolved in, but were brought out strongly by soaking sections in acetic acid, a substance which dissolves colloid matter.

These bodies were found in sections from the frontal lobes, central convolutions and spinal cord. We saw none in the cerebellum; but only a few sections were made of this part. We regard them as post-mortem products. One of the writers has sections from the spinal cord of a man who died from tetanus which show apparently similar bodies. Certain writers on cerebral pathology have described similar bodies as being "proteinaceous" and and as either post-mortem or the result of chronic brain disease. The aniline reaction was very striking, and might perhaps justify an opinion that they are amyloid bodies, though they gave no iodine reaction.

The writers observed occasional thickened bloodvessels in the cortex. No other change of interest was noted. The perivascular spaces, the cells, the nuclei, all presented no abnormalities which we could detect. There were no aneurisms, and no pigmentation. The large motor cells from the right central convolutions, (one of which was small) were abundantly present, and were normal in appearance.

A minute description of the different parts as well as a drawing of some of the sections have been made, but it does not seem worth while to ask your space for their insertion.

Our examinations were made in large part at Prof. Satterthwaite's laboratory, and we are indebted to Drs. W. H. Porter and E. C. Wendt for suggestion and assistance in studying and preparing the sections.

WM. J. MORTON, M. D.,
C. L. DANA, M. D.

To the editor of the *Medical Record*.

The following circular has been issued by the Illinois State Board of Health:

OFFICE OF THE SECRETARY,
SPRINGFIELD, JULY 15, 1882.

DEAR SIR.—At a regular meeting of the State Board of Health, held April 13–15, 1882, the following resolution was adopted:

Resolved, That in order to protect the legal survivers, to facilitate the detection of crime, and to secure fuller and more accurate knowledge of the causes of mortality, whereby preventive medicine and general sanitation may be promoted, the Illinois State Board of Health earnestly recommends to the proper authorities of all cities and towns in this State, having populations of one thousand or over, the enactment and enforcement of a suitable ordinance requiring a burial permit from a designated official, and based upon the physician's certificate of death, *now required by the statute*, as a condition precedent to interment within, or removal of a decedent without, the corporate limits of any such city or town.

A form of such ordinance is herewith presented, and it is hoped you may be able to secure enactment.

It should be observed that wherever such an ordinance is adopted, the certifying physician is relieved of the necessity of transmitting his certificate direct to the county clerk, but will simply return them to the designated city or town official, who will forward them to the county clerk after using them as the basis for the burial permit. This has been found to work well practically in places where burial permits are required. It helps to secure a more general compliance with the law requiring physicians to report all deaths occurring under their supervision with certificates of the causes thereof.

The manifest object of the State law is to secure such knowl-

edge of the causes of mortality as may lead to measures for removing or modifying such causes as are susceptible of removal or modication. This is of primary importance to cities and towns, since a reputation for healthfulness or the reverse undoubtedly influences the growth and prosperity of any given locality. By means of the burial permit and its record the facts contained in the physician's certificate may be made immediately available for this purpose, while they cannot be, where returned direct to the county clerk. From the "suitable book," prescribed in section 4 of the ordinance, a weekly or monthly report may be compiled for publication, either in the newspaper press or otherwise, and thus the condition of, and the influences affecting, the the public health may be accurately judged at any given time, and comparison made with other localities.

Where burial permits are required—as they are in many places—the existence of a contagious disease—as small-pox, scarlet fever, diptheria—has often first been made known by the information given in the permit, which thus serves to direct preventive measures for arresting further spread of the contagion.

On the other hand, in the absence of a burial permit, many evils may arise, among which may be mentioned the fact that the bodies of murdered persons may be more easily disposed of. Within a very brief period three such instances have come to the Secretary's knowledge, where the bodies of the victims were buried without exciting suspicion. Accidental clues led to disinterment and discovery of the crimes.

Briefly, the reasons for the enactment of such an ordinance may be thus summarized:

First.—It will be of value in securing fuller, more accurate, and more readily available knowledge of the causes of death—a knowledge which is absolutely necessary to the profitable application of efforts for the preservation of health, the limitation of disease and the prolongation of human life.

Second.—It will be of value in the protection of life against criminal violence, by facilitating the detection of such violence through preventing the burial of victims of homicide, abortion, poisoning, etc., without proper investigation.

Third.—It will be of value in the protection of property interests by making the facts pertaining to a death and burial matters of record which may be useful in probating wills, settling

estates, determining heirships, perfecting letters, adjusting life insurance and kindred matters.

For the foregoing reasons your interest and influence in behalf of the measure are confidently anticipated.

Very respectfully,

JOHN H. RAUCH, Sec'y.

The benefits, not only to State, but to Practical Medicine, which will accrue from such a measure are so obvious that we feel sure all physicians will cordially aid the State Board in this effort to further advancement in medicine.

TRI-STATE MEDICAL SOCIETY.—The next annual meeting of this society will be held it Terre Haute during the last week in September, 1882. Papers will be limited to twenty-five minutes in the reading, those on subjects of personal observation being preferred. No legislation nor questions relating to constitution and by-laws will be discussed, and no banqueting will be indulged in, or invitations to public entertainments accepted. The entire time of the session will be occupied in the reading and discussion of papers. Information as to hotel and railroad rates may be had, with the programme, by application to Jno. E. Link, M. D., chairman of Committee of Arrangements, Terre Haute, Ind. Those who have papers to present should inform Dr. William Porter, St. Louis, Mo., or Dr. Link, of the fact at as early a date as possible.

The following is the programme:

TUESDAY MORNING, Sept. 26.—1. Reports of Officers and Committees. 2. President's Address. 3. Rationalism in Medicine, S. E. Munford, M. D., Princeton, Ind. 4. The The Dosage of Medicine (15 min.), Henry Orendorff, M. D., Louisville, Ky. 5. Is the Child Legitimate? D. S. Booth, M. D., Sparta, Ill.

TUESDAY AFTERNOON.—1. Quinine as a Therapeutic Agent, Wm. Lomax, M. D., Marion, Ind. 2. Malaria, J. L. Reat, M. D., Tuscola, Ill. 3. Malarial Hæmaturia, E. H. Luckett, M. D., Owensboro, Ky. 4. Origin or Heat in Fever, G. Wheeler Jones, M. D., Danville, Ill. 5. Iodine in Fever, C. P. Hunter, M. D., Springertown, Ill. 6. Report of Surgical Cases, J. W. Thompson, M. D., Paducah, Ky. 7. Lateral Curvature of the Spine, Ap. Morgan Vance, M. D., Louisville, Ky.

TUESDAY EVENING.—1. Ocular Therapeutics, J. L. Thompson, M. D., Indianapolis, Ind. 2. The Alkaloids in Diseases of the Eye, Wm. Cheatham, Louisville, Ky. 3. Cancer of the Larynx—Relative Value of; Tracheotomy and Extirpation in Treatment, H. H. Mudd, M. D., St. Louis, Mo. 4. Death from Pneumonia, H. V. Ferrell, M. D., Carterville, Ill. 5. Empyema, R. E. Beach, M. D., Vandalia, Ill.

WEDNESDAY MORNING, Sept. 27th.—1. Business Meeting. 2. Report on Peritonitis, Archd. Dixon, Henderson, Ky. 3. Strangulated Hernia, A. M. Owen, Evansville, Ind. 4. Cases of Abdominal Surgery, L. J. Willien, M. D., Terre Haute, Ind. 5. When is Colotomy Advisable? J. M. Matthews, M. D., Louisville, Ky. 6. Laparotomy, R. E. Haughton, M. D., Indianapolis, Ind.

WEDNESDAY AFTERNOON.—1. Caffein in Headache, C. P. Johnson, M. D., Champaign, Ill. 2. Disorder of Space Sense, J. S. Jewel, M. D., Chicago, Ill. 3. The Seton in Certain Nervous Diseases, John W. Holland, M. D., Louisville, Ky. 4. Pathology of Insanity, N. Field, M. D., Jeffersonville. Ind. 5. Small-pox, A. Milner, M. D., Grayville, Ill. 6. Vaccination, J. W. Compton, M. D., Evansville, Ind. 7. Vaccination, J. F. Hibberd, M. D., Richmond, Ind.

WEDNESDAY EVENING.—1. Lacerated Perineum, W. L. Barrett, M. D., St. Louis, Mo. 2. The Swathing Band, J. E. Stokes, M. D., Grayville, Ill. 3. Advisability of Producing Premature Labor in Placenta Prævia, E. W. King, M. D., New Albany, Ind. 4. Midwifery—Its Difficulties and Dangers, S. H. Pearse, M. D., Mount Vernon, Ind. 5. Accidental Postpartum Hemorrhage, J. W. Pritchett, M. D., Madisonville, Ky. 6. Surgical Treatment of Uterine Fibroids, (15 min.) W. H. Wathen, M. D., Louisville, Ky.

THURSDAY MORNING, Sept. 28th.—1. Report on Disinfectants, Louis Bauer, M. D., St. Louis, Mo. 2. Antiseptic Surgery, T. Whitten, M. D., Nokomis, Ill. 3. Alcohol as an Anæsthetic, Illustrated by a Case of Amputation of the Leg by Open Method, J. E. Link, M. D., Terre Haute, Ind. 4. Departure from Normal Development, H. C. Fairbrother, M. D., East St. Louis, Ill. 5. Developmental Period, Jno. P. Speed, M. D., Louisville, Ky. 6. Embryological Development, Richard Owen, M. D., New Harmony, Ind.

THURSDAY AFTERNOON.—1. Treatment of Fractures of Fore Arm, J. R. Comingor, M. D., Indianapolis, Ind. 2. Fractures of Distal Part of Leg, Heber Robarts, M. D., Carbondale, Ill. 3. Hip-joint Disease, W. M. Fuqua, M. D., Hopkinsville, Ky. 4. Trephining in Disease of Frontal Sinus, Wm. A. Byrd, M. D., Quincy, Ill. 5. Aneurism of Common Femoral, J. M. Holloway, M. D., Louisville, Ky.

THURSDAY EVENING.—1. A New Stich in Palotoplasty, David Prince, M. D., Jacksonville, Ill. 2. Use of Suture Button, H. H. Clark, M. D., Danville, Ill. 3. Calomel in Infantile Diseases, M. Forsythe, M. D., Terre Haute, Ind. 4. Rapid Cure of Syphilis, Jno. Vertrees, M. D., Grayville, Ill. 5. Climatology, S. W. Marshall, M. D., Sparta, Ill.

ARRANGEMENTS.

1. The sessions will be held in Dowling Hall.

2. Hotel rates for members at the Terre Haute House $2.00 reduced from $3;00; at the National Hotel, $2.00, reduced from $2.50. Any other accommodations will be arranged for by the Local Reception Committe.

3. Arrangements for special rates have been made with the railroads centering here and their connections, as follows: Vandalia Line, I. & St. L., C. & E. I., E. & T. H., L. & N., Ills. Central, W., St. L. & P., one and one-third fare for round trip. The P., C. & St. L., Cincinnati Southern, and I., B. & W. give round trip excursion rates by application to local agents.

Members of the profession, desiring to take advantage of these arrangements, will please apply to Dr. J. E. Link, Chairman of the Committee of Arrangements, who will furnish full particulars.

Members are requested to be present at the first session, as the regular business will begin without delay.

5. Each session will be called promptly.

6. Papers are limited by rule to twenty-five minutes.

7. Time for discussion will be given after each paper, or series of papers.

8. Authors unavoidably absent, will send their papers to the Secretary during the first day of the meeting.

9. All physicians in attendance will, on arrival, apply for tickets of membership issued by the Secretary.

10. Volunteer papers are solicited, and arrangements will be made for their presentation.

Officers.—President, J. M. Holloway, M. D., Louisville, Ky.; Secretary, G. W. Burton, M. D., Mitchell, Ind.; Treasurer, F. W. Beard, M. D., Vincennes, Ind.; J. E. Link, M. D. Terre Haute, Ind., Chairman of Committee of Arrangements; Wm. Porter, M. D. St. Louis, Mo., Chairman of Committee of Programme.

Local Committee of Reception.—S. J. Young, M. D., J. D. Mitchell, M. D., L. J. Willien, M. D., W. H. Roberts, M. D., G. W. Crapo, M. D.

A NEW APPARATUS FOR TAKING TRACINGS.—M. D'Arsonval has invented an apparatus for taking tracings at a distance free from rubbing. The smoke, or soot, is stored in an India-rubber bag, or produced by a current of air issuing from a gasometer, or a bag full of gas. Tinder, or the leaves of certain plants, answer equally well; likewise the smoke of a lamp, or a smoky candle. The registering stylus is hollow, and the smoke passes along the rotatory axis. In another kind the stylus moves along with the tracing-paper, and the jet of smoke is stationary. M. D'Arsonval made a communication to the Biological Society, in which he says that the instrument can be varied in numberless ways.

THE USE OF TOBACCO AND STIMULANTS.—It response to a circular recently sent out by Mr. Arthur Reade, who has been collecting information as to the habits of literary men in regard to stimulants, the Abbé Moigno gives the following record of his experiences: In his paper, *Les Mondes*, he states that he has published 150 volumes, small and great; that he scarcely ever leaves his working-table and never takes walking exercise; yet he never has a trace of headache, or brain-weariness, or constipation, or any form of urinary troubles, etc. He never has recourse for his work to stimulants, coffee, alcohol, tobacco, etc., a statement which the sequel shows to need qualification. Snuff-taking he has sometimes practiced, but he vigorously condemns it. He has learned twelve foreign languages by a method of his own, and with regard to his acquirements in philosophy and chronology, he says, 'I was one of the most extraordinary personalities of my time, and François Arago sometimes laughingly threatened to have me burnt as a sorcerer.' On one occasion,

when in Munich for a few weeks, and spending his evenings with Bavarian *savants*, who each smoked four or five cigars and drank five pots or beer daily (Steinheil, the most illustrious, bosted of smoking 6,000 cigars a year), the Abbé came to smoke three or four cigars a day. He had also anew, taken to snuff, so that, when preparing his calculus of variations, a very difficult mathematical work, he would empty his snuff-box (which held 25 grammes) in a day. But one day he was surprised to find himself painfully unable to recall the meaning of foreign words, and remember dates with which he had been familiar. Thereupon he formed a heroic resolution, and since August 31, 1868, when he smoked three cigars and took 25 centimes' worth of snuff, he has, up to the 25th of June, 1882, touched neither. This was, for him, a complete resurrection, not only of memory, but of general health and well-being; he has had indefinite capacity of work, unconscious digestion, perfect asimilation of food (of which he can take more), etc. For the rest, he mentions that he takes a small cup of black coffee in the morning, and when all but two or three spoonsfuls has been drunk, he adds a small spoonful of brandy or other alcoholic liquor. This is his ration of stimulants. He goes to bed about nine, and rises at five, 'full of vigor.' The Abbé is over 80.—[*London Medical Record.*

A TEN-OUNCE BABY.—The *Medical Record* reports the case of a New York woman who gave birth recently to a living son weighing ten ounces. Two years previously she bore a son weighing eleven ounces, who thrived and grew till he is now nearly as large as an average child of the same age. The woman and her husband are of natural size.

HYDROPHOBIA FROM FEAR.—The *Gazette des Hôpitaux*, while noticing a case of alleged recovery from hydrophobia related to to the Académie de Médicine observes that it is often difficult to make the distinction between true hydrophobia, due to the absorption of the rabid virus, and the symstoms of hydrophobia caused by fear of the disease. Was it really hydrophobia of which a woman died at the Hôtel-Dieu, with what seemed to be the symptoms of the disease? Several months before, this woman, a street vender, had been bitten by a dog as she was passing Notre Dame, and went at once and had the wound cauterized at the Hôtel Dieu. From that time she continued perfectly well,

until one day, when she was pushing her barrow before the Hôtel-Dieu, she was recognized by one of the students, who called out to her, "Halloa! you are not dead yet, then! The dog which bit your thigh was downright mad, as they found out at Alfort!" At the very instant the poor woman was seized with a violent pharyngeal spasm, and was at once taken to the Hôtel-Dieu, where she died with all the symptoms of hydrophobia.

THE desire for some more speedy method of publishing and distributing the transactions of the American Medical Association than has been attained, through an annual volume, led the Association, its last meeting, to decide to journalize its proceedings, and publish them hereafter it the form of a Medical Journal, provided the members of the Association and the profession at large will insure its pecuniary success. This may be secured by the prompt payment of the annual dues of the members of the Association, and of subscriptions by those not members. The journal is to be under the control of the Association, through its trustees, and to be issued and supplied in place of its annual volume of transactions. It will be known as *The Journal of the American Medical Association*. The trustees will, if they recieve a sufficient number of subscriptions, feel justified in recommending to the Association the propriety of the change, and the adoption of the following plan: To issue a weekly journal, each number to contain thirty-two double-pages of reading matter, and which shall embrace the following departments:

I. Original Papers, Addresses, Reports, and so forth. This will include all the papers read before the Association, and its sections, which are referred for publication.

II. Leading Editorials on the Scientific, Educational, Social, Sanitary, Ethical and other interests of the profession.

III. Editorial summary of progress in the several departments of medicine, and the collateral sciences, including reviews of new books.

IV. Notices of the preceedings of Medical and Scientific Societies throughout the country.

V. Correspondence, Domestic and Foreign.

VI. American Medical Association Intelligence.

VII. Miscellaneous Medical News.

Through the medium of such a journal, the proceedings and papers of the Association will reach the members much earlier

each year, and by its frequent visits, and its large amount of additional matter of value, it will maintain a much more active interest on the part of the entire membership; while its notices of the proceedings of the several State societies will tend to bring those societies into closer relationship with the national society, and thereby greatly aid in the extension and usefulness of the social organizations of the whole profession.

All members of the Association who pay the annual dues ($5.00), promptly, will by that act be subscribers, and will receive the journal as it shall be issued. To those not members of the Association the subscription price will be $5.00 in advance.

If the pledges of support are sufficient to justify the final adoption of the plan, the first number will be issued on the first of July, 1883.

N. S. DAVIS, M. D., *Pres. of Board of Trustees.*
65 Randoph Street, Chicago, Ill.

Walsh's Retrospect, as we have been informed by its editor, will be suspended until Jan., 1883, when Vol. III. will be completed and its publication continued. The many friends of this meritorious publication will be grieved to learn that the business engagements of Dr. Walsh will prevent the regular appearance of this journal for such a long time.

MESSRS. WOOD & Co., of New York, contemplate issuing a new publication, the *Journal of Cutaneous and Venereal Diseases*, a monthly edited by Drs. Henry G. Piffard and Prince A. Morrow. The initial number will appear in October, tthe subscription price being $2.50 per year, in advance.

DEATH OF DR. PIDOUX.—Dr. Pidoux died on the 4th inst., at his residence in Paris, from diabetic gangrene. His principal work is his "*Traité de Thérapeutique et de Matière Médicale*," the first edition of which was published in 1839, in conjunction with the late Dr. Trousseau.

DEATH OF DR. MCEWEN.—We regret to learn the death of Dr. McEwen, of Chester, England, who became personally known to many American physicians during his visit to this country last summer.

DEATH OF PROF. HILDEBRANDT.—Our German exchanges announce the sudden death from apoplexy, of Prof. Hildebrandt, the eminent teacher of gynecology, in Königsberg.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—JULY, 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	77.0	93.0	18	57.0	83.0
2	67.0	79.5	19	63.5	83.5
3	66.5	84.5	20	66.0	72 5
4	64.0	74.0	21	61.5	79.0
5	60.0	75.0	22	64.0	81.5
6	63.0	77.0	23	59.0	84.0
7	64.5	77.5	24	66.0	85.0
8	70.0	87.0	25	67.0	87.5
9	73.0	89.0	26	68.5	88.5
10	72.0	88.0	27	73.5	90.0
11	79.0	85.5	28	74.5	90.5
12	73.5	82.0	29	72.0	84.0
13	62.0	77.0	30	70.5	80.0
14	58.5	75.5	31	71.5	83.5
15	63.0	81.0			
16	68.0	86.0	Means	67.1	82.7
17	65.0	79.0	Monthly Mean.	74.9	

Quantity of rain, 3.88 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM JULY 1, 1882, TO JULY 29, 1882, INCLUSIVE.

Small Pox..... 0	Childbirth..... 3	Convulsions & Trismus Neonatorum 64	Syphilis..... 1
Scarlatina. 31	Inanition, Want of Breast Milk, etc. 21	Hydrocephalus and Tub. Meningitis.10	Apoplexy 11
Pyæmia & Septicæ 4	Alcoholism.. 13	Meningitis & Encephalitis 44	Dis. fem. gen. org. 3
Erysipelas 2	Rheumat'm & Gout 1	Other Diseases of the Brain and Nervous System37	Surgical Operation 0
Diphtheria 15	Cancer and Malignant Tumor.... 16	Cirrhosis of Liver and Hepatitis ...16	Deaths by Suicide 3
Membran's Croup. 1	Phthisis & Tuberculosis, Pulmon 79	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 29	Deaths by Accid't 29
Whooping Cough. 25	Bronchitis.. 10	Bright's Disease and Nephritis...14	Deaths by Homicid 3
Ovarian tumor.... 0	Senility 22	Other Diseases of Urin ary Organs. 2	Congen Defor'ty 68
Measles 21	Pneumonia..... 26	Dis. locom Organs 4	Total Deaths from all Causes.... 339
Typhoid Fever.... 9	Heart Diseases.... 19	Unknown 0	Total Zymotic Diseases 433
Cerebro Spinal Fev 2	Other Diseases of Respir'y Organs.11		Total Constitutional Diseases.....177
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers,23	Heat Stroke..... 1		Total Local Diseases 295
Puerperal Fevers.. 4	Marasmus—Tabes Mesenterica and Scrofula. 59		Total Develop'tal Diseases 102
Diarrhœal Diseas 252	Other Const. Dis. 12		Deaths by Viol'ce 35
Other Zymotic Diseases 3			Unknown 0

CHAS. W. FRANCIS. *Health Commissioner.*

VOL. XLIII. OCTOBER, 1882. No. 4

Original Contributions.

ARTICLE XLVII.

THE PHILOSOPHICAL RELATIONS OF HEAT TO DISEASE. By ROMAINE J. CURTISS, M. D., Joliet, Ill.

The relations of heat to disease depend upon, first, the general laws of conservation of energy; second, the force transformation power of organisms or living things; and third, the germ theory of disease.

1. By conservation of energy is understood the fact that the sun's heat, from which all terrestial energy is derived, whether electric, magnetic, illuminating, chemical or "vital," however much it is changed from one form of force manifestation to another, is conserved, and is not lost. If heat disappears as a manifestation of force, it reappears in its equivalent of some other form of force. The sun's heat is changed on the surface of the earth into the terrestial physics and terrestial life; and the physics of the earth, including the forms of vegetable and animal life, the structure and phenomena of everything, inorganic and organic, if weighed and measured, would be found to represent in the sum total the equivalent of the heat received by the earth from the sun.

This is a statement, in its most general terms, of the law of conservation of energy. In more special terms, it may be said that heat can be so manipulated in laboratories that it is transformed into other manifestations of force at will, and the principal industries of human beings consist, in a general sense, in transforming heat into work.

Now the transformation of heat into another force, whether physical or "vital," is always accompanied by a corresponding change in the form or relative position of matter. Water on the surface of ponds is in the position nearest to the stable equilibrium of water; while organic matter, in the form of uncombined carbon, hydrogen, oxygen and nitrogen, is in the form nearest to its possible stability. If the sun's heat vaporises water from the surface of the pond and raises it into clouds, the position of the cloud or its height, represents the force expended in raising

it. This position *in space* is something added to the water, and is also something which the water, by condensation and falling back into the pond will give up again, in the form of heat or work.

When carbon, hydrogen, oxygen and nitrogen are built up into vegetable or animal structure, as a tree or a man, their position *in structure* represents the amount of force from the sun expended in raising them to this position. When the tree decays, and the man is pulled to pieces in his grave by the micro-organisms of decay, the force which was expended in building up their elements into structure is given up again, either in heat or work.

When water exists in a cloud and is endowed with something which it did not have on the surface of a pond, that something represents the amount of force spent in raising it, and is known as its energy of position—or potential energy. When the water falls, this potential energy begins to be transformed, either into heat or work, in washing or warming the air or turning wheels, and these transformations of energy go by the name of kinetic force. Force expended on the position of matter is potential, and force when it is being transformed into other forces is kinetic. When carbon, hydrogen, oxygen and nitrogen exist in complex combinations in vegetable and animal structure, their position represents something which they do not have when not thus combined, and that they must give up again, when the structure decomposes, either as heat or work. Vegetable and animal matter, raised in this way, must decompose in order to produce work or heat as a product of any animal or vegetable. The heat of the body, and the work of the human mind or hands, is the equivalent of food force taken in by the human being, and which food gives up to the body its potential energy; and the work of a man consists in transforming the potential energy of food into the many complex transformations or forces of kinetic energy of which the human being is capable, and for which he is so celebrated.

2. Bioplasm, protoplasm or living matter is declared to possess a principle or entity, different, or *absolutely* differing from inorganic matter, which principle or entity is called life, and the material manifestation of which is that it bestows upon matter the power of transforming force into other forms of force, or of taking food and transforming it into structure and force—

either work or heat. The "vitalists" are not satisfied with the term, protoplasm, but prefer bioplasm, for the reason that dead protoplasm does not have the power of taking food and transforming it into structure (or formed material) and work, while live protoplasm does have this power; therefore live protoplasm has something added to it (life or vitality) which is something different from protoplasm, and therefore live protoplasm is bioplasm. The vitalists assert that there is no chemical, physical (or molecular) difference between protoplasm and bioplasm, and therefore, the principle of life is an entity, a ghost from the land of spirits, and hence there is no such thing as manifestation of life without the addition of this entity, the principle of life, to matter.

This proposition simply throws the subject of life outside the domain of science. We can either know, scientifically, the "problems of life," or we cannot know them. If physiology is "vitality," there is no such science as physiology. This question hangs on the alleged facts that living matter has the power of transforming food into structure and work, while dead matter does not, and that there is no structural difference between dead and living protoplasm.

Now it will be found that neither of these propositions is true, and further, that the human mind cannot even conceive that they are true in any other way except "verbally," and not in any logical sense. If the vital protoplasm has a supernatural gift of taking food and transforming it into heat, work, and formed materials, the supernatural force gives to living machines, vegetable and animal alike, no greater power than is possessed by any sort of a machine. Prisms are sometimes found, of natural formation, which have the power of decomposing light. Prisms are made which have this power. If it was not proven, or subject to proof that the glass of prisms is arranged differently from other glass, the power of prisms would be called a principle and an entity, and there would be great difficulty in proving that such a principle did not exist. Perhaps people would say, as they say of protoplasm and bioplasm, there is no difference in structure between the glass which does not decompose light and that which does, therefore, the glass which does decompose light is endowed with something which glass in general does not have, and this principle is a ghost. Now it is plain that the prismatic power of a prism is due to the arrangement of its

molecules, to the character of its structure, and not to any independent principle. If a prism is smashed, or melted over, or was too small to be seen, nobody could tell why it lost, as glass, its prismatic power, and hence would arise the "margin" for supernatural or unscientific speculation, and prismatic power would be classed among the immortals.

From the data already given, I will now make the general induction that no matter, whether living or dead, has any power of transforming the sun's heat, or force, into other force or formed material except the force of *inertia* or *resistance*, and with this induction in view I will trace the scientific likeness of relations between all machines—"living and inanimate."

Protoplasm or bioplasm, then, in the transformation of the equivalent of the sun's heat, represented by the food it takes, has no special force, in building up new tissue, secretions, excretions, or any formed material, or in doveloping heat or performing work, except the simple resistance of inertia to the sun's force; and the character of the work done, the amount of heat developed, and the nature of the formed materials of any organism depends upon its structure, and the sequent direction given to force and matter in passing through it, just as the structure of a prism determines the direction of light which results in the decomposition of the ray.

The first general relation of likeness, then, between all machines, and the property common to all of them, and common to all matter, is the principle of resistance; the second is the power thus acquired of producing new forms of matter, and developing heat and work, and, third, the further relation of likeness is the manifestation in consciousness of a principle which has been and may be taken by people according to their culture, as a supernatural entity. These relations of likeness exist indifferently between all forms of matter, living and inanimate alike, and constitute all that there is in science which relates to relations of likeness between forms of matter which are so arranged as to manifest any action in the transformations of force. The same inductions, however, will follow any estimate based on the relations of difference.

Now to illustrate these general relations of likeness, we will take any of the forms of life, and applying these general relations as vital manifestations, we will then compare them with the

mechanical manifestations of other machines which are classed as inanimate.

All animal forms have certain definite structures which determine by this structural arrangement, the direction which force and matter shall take under their resistance, in producing special varieties of work, heat, and special varieties of formed materials. These animal forms consume food, which is stored energy; this material and force is changed into the heat of the body, into work and formed materials, including the structure of the body, excretions and secretions. The work performed by the animal includes its bodily activity, and it is this totality of functions, as represented in consciousness, which is called life, and which the vitalists are disposed to believe is the power which transforms energy, produces heat, performs work and makes new forms of matter; and vitalists substitute this manifestation of the machine in consciousness in the place of inertia, or the resistance of matter to the sun's heat, as represented in food force.

In relations of likeness, any inanimate machine presents the same manifestations to consciousness as the animal machine. All these machines take in force of a potential character, and transform it into heat, work and formed materials, and also represent in consciousness a principle, which is as easily separated from the machine as its product, as life is from a vegetable or animal. In a clock the potential energy is changed by the mechanical arrangement of the machine into work and heat, and there is a product of the activity or work of the clock which goes by the title of time-measuring, and which is a principle, or product, as it appears in consciousness, very independent of all conceptions of the potential energy, the brass and wood, and steel, and paint of a clock.

[TO BE CONTINUED.]

Article XLVIII.

The Spray Producer is the Best Means of Making Applications to the Superior Portion of the Respiratory Tract.

By Thos. F. Rumbold, M. D., of St. Louis.

[concluded.]

The rain falls upon the just and the unjust, so does an inhaled vapor or powder with like impartiality light upon the healthy surface covered by the thin coating of mucus, and produces its effect upon the membrane, and also fall upon the thick, viscid coating of muco-purulent secretion, but it will have little or no effect upon the inflamed membrane covered by it. A vapor or powder thrown into these passages can have no effect unless it reaches the mucous membrane by being first formed into a solution by the mucus covering the membrane. Now, we know that the surface to be treated is covered by a thick, tenaceous coating of mucus, sometimes forming a crust, and that this thick mucus will require a comparatively *long time* for it to form a solution of the powder or vapor, while the thin normal mucus that moistens the healthy membrane, on account of its *watery* consistancy, *very quickly* form a solution of all soluble substances that fall upon it.

It follows, therefore, that inhaled vapors warm or cold or insufflated powder cannot act upon the diseased surface, nor cleanse it of its vitiated secretion except in a secondary way, that is, by irritating the healthy surface to the degree of exciting an unusual flow of mucus in the whole cavity, which may, and always does wash away a part of the adhering muco-purulent secretion. It is seen that the surface that does not require treatment receives it, and the surface that does require it does not receive it. In other words, harm is done that good may come from it. A method of treatment that must irritate the healthy parts to free the diseased part of its unhealthy secretions, must do great injury to the healthy surface, and the injury done to the one must be, and is, under these circumstance, greater than the benefit done to the other, for the healthy membrane will take on an inflamed condition very much faster than the diseased portion

will resume its normal condition. But, says the advocate of the powder treatment, if the catarrhal secretion is first removed, *then* the powder will have a beneficial effect. This is very doubtful. It is impossible to apply a powder to the diseased surface alone, and we know that the healthy mucous membrane will be injured by any kind of a powder, as its suface must be in a *moistened condition* to allow it to perform its function, and a powder that might be beneficial to a diseased surface, is certain to be injurious to a healthy surface. This kind of haphazard application to these important passages is unscientific. There is no excuse for it when we have means at hand which will not produce the least irritation, while attempting to relieve irritation.

The SPONGE-PROBANG or the BRUSH is an imperfect means of applying either a liquid or a powder to the most diseased parts of the superior portion of the respiratory tract. For instance, if a circumscribed spot in the pharyngo-nasal cavity, or in the larynx is to be touched, it cannot be done without touching other parts also because either of these passages, in its spasmodic closure, will instantly grasp the instrument and in this way apply the remaining medicated liquid or powder to every portion of the presenting folds.

If the application was made so quickly that the instrument is removed before the contractions can grasp it, then a portion of the powder or liquid that was placed on the ulcerated spot, will be applied to the healthy part of the membrane that comes in contact with the spot during the closure of the passage made by the contraction. In this way a healthy portion of the mucous membrane that is pressed against the spot touched by the instrument, will receive an application that it does not require, and it will be certain to injure it. If the whole surface is to be treated, this also will be incompletely accomplished, for the reason that as soon as the patient feels the contact of the instrument, instaneous contraction of all the muscles surrounding either passage will ensue, thus completly closing it. This spasmodic closure will be only partially relaxed, while the patient making expulsive efforts to eject the instrument or the medicament by retching or coughing, or both combined. It is evident, under these circumstances, that it is only those parts of the mucous membrane that form the projecting folds, which close the fauces, that receive the force and application from the instrument. One might as well expect to wash the hand clean by forcing a pro-

bang between the fingers and the palm when the hand is tightly closed. In this instance, and in that of the throat, the presenting ridge only are cleansed, leaving those portions of the surface that formed the creases between the folds, untouched, hence uncleansed; and those untouched portions form at least one-half if not two-thirds of the entire surface. Not unfrequently so much pressure is applied to the probang or brush, for the purpose of passing the instrument into the larynx or up behind the soft palate, that the presenting folds of the inflamed mucous membrane receives positive injury. Even if these instruments are used with such delicacy that they, of themselves, would cause almost no irritation, still the cleansing and the application must necessarily be imperfectly done, on account of the spasmodic closure already mentioned.

SOLID SUBSTANCES must, for the same reason, be a far more imperfect way of making an application than by means of the probang or brush. Even if the caustic is applied by an instrument that covers it, except at the moment the touch is made, it will be impossible for the remedy to reach the most diseased parts. Sometimes an ulcer in the pharynx or larynx or on the tonsils or the arterior surface of the velum or the uvula may be slightly benefitted by being touched by a remedy that would be injurious to the surrounding tissues; in this case the covered caustic may sometimes be used to good purpose. However, I wish to say here that I have not used my covered caustic carrier during the last six years.

As every ulcer is molecular death, the result of complete obstruction of the circulation in that part, any application directed to the diseased spot alone, will not tend to remove the producing cause, which is the stasis of the blood surrounding the ulcer. For this reason I think that it is quite questionable whether it is ever necessary to touch an ulcerated surface with a remedy that does not tend to remove the surrounding congestion, the surrounding stasis. My observation teaches me that if I can succeed in relieving the irritation that produces the congestion, the appearance of the ulceration is always improved. I now treat every ulcer by such applications to the surrounding inflamed surfaced, than the congestion is relieved at once, and *at once* the ulcer commences to improve in appearance. This improved appearance takes place even in many of those patients who afterward die of severe disease involving the lungs.

THE SYRINGE may be employed to apply either a liquid or a powder. If a liquid is applied, the quantity that is necessary to cleanse the pharyngo-nasal cavity is so great that it will choke a young patient, nor will he submit to a second application without persuasion or compulsion of some kind by his parents or physician or both. It nearly always follows that those patients that require any compulsion to allow local applications, are slighted in the treatment.

A small quantity of water will not wash a chronically inflamed surface clean. It does not have sufficient force, while the quantity that will prove efficient is so great as to be exceedingly unpleasant; besides this, it is apt to go into the ethmoidal sinuses and the antra of Highmore, and there set up a new inflammatory action or prepare them to take on inflammation from the next cold. This is enough to condemn the instrument without taking into consideration the injury done by the curved extremity of the instrument, to the highly inflamed membrane lining the posterior wall of the pharynx. While the application of a remedy in a dry condition by means of a syringe, might have a beneficial effect upon a cleansed surface, it could not, of itself, remove the morbid secretion; yet the removal of this secretion is fully one-half of the benefit that is to be derived from local interference. Applying a powder upon a diseased mucous membrane, before it is cleansed, is but trifling with the patient.

There are various kinds of SPRAY PRODUCERS, some of which do not possess the three important qualifications that have been named. Either they cause irritation or they do not cleanse the diseased surface, or they do not apply the remedy to the whole of the inflamed surface. There are quite a variety of these instruments used by the profession, the one most commonly employed, being known as "Richardson's Spray Producer." There are several objections to this instrument, but the most serious one—and it applies to all forms of spray producers that take the medicated fluid from a bottle—is, that the remedy can not be applied in a *warm condition.* To properly treat an inflamed mucous membrane, either in the acute or chronic stage, it is essential that all the remedies should be *warm.* A remedy that will have a very soothing effect if applied while warm, will frequently occasion positive pain if applied in a cold condition. The warmth also increases the cleaning power of the liquid used.

The only instrument that comes nearest to possessing all of

the qualifications that are required, that will fulfill every object desired, are spray producers, so constructed that it is possible to throw a *warm* stream of spray. They far surpass all other instruments for making local applications to a diseased mucous membrane. The stream thrown by them is composed of air and fluid. As the inflamed and ulcerated surface is not touched by the instrument, but only impinged upon by the air and liquid, it follows that it is operated upon in the mildest manner possible, with the least possible irritation. Consequently if the medicated fluid has of itself no irritating effect, which it should not have, the only cause for the contraction of the muscles of these air passages will be the impingement of the air and spray of the medicament thrown upon their surfaces, which even a sensitive patient will soon learn to tolerate. This being the case, there is abundant opportunity to make the application for a sufficient length of time to be thorough and to act upon the entire mucous surface, that is, to blow and wash the muco-purulent secretions away from every irregularity, and from locations that are impossible to be reached by the brush or sponge or even viewed during life. THESE INSTRUMENTS COMBINE WITH EFFICACIOUS CLEANSING AND MEDICATING, A THOROUGHNESS AND A MILDNESS THAT ARE UNEQUALLED BY ANY KNOWN MEANS.

The instruments should be so constructed that each will throw a stream in a different direction and, their combined directions should be such that they will treat the *entire* inflamed surface. They must also be of such capacity that the quantity of the liquid and force of the air may be such as to suit the variety of the case; that is, in the case of a child where the secretions are always fluid and the surface always sensitive, the force of the air should be just sufficient to clean the membrane, and the quantity of liquid used should be comparatively small. With a patient of about twenty years of age, where the secretions are in a semi-fluid condition, adhering so tenaciously to the surface that they cannot easily be removed, the force of the air should be greater than for the child and the quantity of fluid proportionally greater, while the patient of forty years, in whom the secretions are always small in quantity and the surface glazed, the spray must be composed of a medium quantity of fluid, and thrown with a medium force of air.

As each instrument can throw a stream in one direction only, and as the avenue to the extensive surface of the posterior nasal

and pharyngo-nasal cavities is the narrow space behind the sensitive soft palate, and the larynx behind the sensitive epiglottis, a variety of spray producers are required.

My experience has taught me that five spray producers are required to properly clean and treat the fauces, and superior cavities, viz.: one instrument that will throw a horizontal stream, while the mouth is opened and the tongue depressed; it will wash the anterior portion of the soft palate, the tonsils, and by elevation and depression of its extremity, the posterior wall of the pharynx from the third cervical vertebra upward to the middle of the second. Another instrument that throws a stream at 45°, this spray will wash that portion of the posterior wall of the pharyngo-nasal cavity covered by the first and second vertebræ. And another one that throws its stream vertically, reaching the superior portion, the arched boundary of the pharyngo-nasal cavity. Another one that treats the posterior nasal openings; this instrument throws a stream upward and forward at an angle of 45° and washes the under surface, borders, edges and sides of the turbinated processes as well as the sides of the septum nasi. Another one that throws a stream intermediate in a direction between the first and second named; this instrument is introduced into the anterior nares, and by elevation and depression of its outer extremity washes and medicates the remaining portions of the nasal passages.

To treat the larynx and base of the tongue will require at least three spray producers, throwing streams in as many different directions. One of these should throw a stream on that portion of the posterior wall of the pharynx which is in front of the third and fourth vertebræ, that is, the portion of the posterior wall above the œsophagus. Another one that directs a stream down into the larynx, and if the patient will make slight inhalation, the spray will pass into the trachea, bronchial tubes and lungs, and another one will treat the base of the tongue and the posterior surface of the epiglottis. A patient may be treated so mildly yet so thoroughly by these spray producers, that he will voluntarily express himself as greatly relieved and improved before he leaves the operating chair. An experience extending as far back as 1866, has convinced me that this is a very successful and a very satisfactory method to pursue.

Article XLIX.

Femoral Tumor of Peritoneal Origin. By A. Wislizenus, M. D., of St. Louis.

Mr. B. L., about fifty years of age, an active business man of St. Louis, called on me in 1879, for a large tumor on the upper part of his right thigh. Some five years ago, he had for the first time perceived a very small tumor about two inches below Poupart's ligament, in the open space of the *abductor internus* when the thigh is bent. It seemed to be a swollen inguinal gland, but was neither painful nor troublesome until in course of time, a tumor was developed from it, spreading under the skin in oblique direction toward the anterior and lower part of the thigh. When I saw it, it was from six to eight inches long, elevating the skin from one to two inches, to the touch quite elastic, but painless and only troublesome by its great size in motions of the thigh. It its upper part, where it protruded from the inner side of the *adductor internus*, it formed a strong pedicle of the size of the middle finger, also painless, but rising apparently from the pelvis. As soon as it had reached the surface under the skin, it spread out into a tumor, descending gradually in an oblique direction toward the anterior part of the thigh, where it protruded under the skin about two inches. This strange tumor in that position was rather puzzling to me. In all the surgical works at my command, I found nothing explaining the character of such a tumor. It was certainly neither an aneurism nor a malignant tumor. I, having been his family physician for many years, knew that there was no constitutional taint nor malignant disease of any kind in the family; and I came to the conclusion that it was, after all, a serous cyst that ought to be operated upon. By agreement we fixed a day for the operation at his house in the country. My only assistant was his wife, whose calmness and courage I had seen tried on other occasions.

After I had made on the lowest and and most elevated portion of the tumor a free incision, some serous liquid escaped, but in too small a quantity to account for the large tumor, mainly

formed by an irregular mass of muscular fibres, with many areoli between them filled with firm, fatty substance. It was, to ocular appearance, a myo-fibroma in a transition state to fatty degeneration. The whole mass was encased in a firm membrane adhering more or less firmly to the skin above and to the muscles under it. I peeled out this sac slowly and patiently, using more my fingers and the pincers than the knife, until I had removed the greater part of the tumor.

When approaching the upper, lesser, and more dangerous part, I thought it prudent to stop and wait for further events before attacking the pedicle. As there was no considerable bleeding, I I used no ligture; but I cleaned the wound with carbolic acid, united it by sutures and made cold applications. I prescribed perfect rest and gave him a mild cathartic, followed by small doses of quinine. When after some days the inflammation subsided, but some matter escaped from the lower end of the wound, I introduced a small seton, that was moved daily, until suppuration ceased. I then commenced attacking the upper part of the tumor and the pedicle with the following hypodermic injection:

℞ Iodine.....gr. viij.
Potass. Iodat.....ʒii.
Aq. dest.....ʒiss.

M. S. For hypodermic injections.

Every Saturday, when business hours were over, the patient called at my office, on his way to his country home, and I injected a full hypodermic syringe into the remaining part of the tumor. When the tumor alone was injected the pain was trifling, and passed away after five or ten minutes; but when the pedicle was touched, the pain was a great deal more acute and lasted longer. After a day's rest at home he was fully able to attend to his business during the week as usual. The effect of these injections was decidedly good; with every one the tumor diminished, and after eighteen injections it had entirely disappeared, and the pedicle had been reduced to half its original size and had become perfectly painless. As after treatment, I advised the occasional brushing of the affected parts with tincture of iodine. The patient's motions were now quite free and natural, and his general health was as good as usual.

I have mentioned above that during the whole of this treatment, I found in works of surgery no case in point. Its management was left entirely to my own judgement; but, on dismissing

it. I happened to see in the *American Journal of the Medical Sciences* (Jan., 1879), a short monograph about similar cases, entitled: "Excision of a large Femoral Cyst, and genetic origin of such cysts from congenital peritoneal pouches." By Middleton Michel, M. D., Prof. in the Medical College of Charleston, S. C. In this paper he reports two cases that fell under his own observation in this country, and quotes six others partly from Velpeau's Clinics, and partly from English surgeons. I give the following extracts:

Dr. Michel's first case was in a negro fifty years of age, presenting a cystic tumor that occupied the entire inner portion of the right thigh from Poupart's ligament to near the knee-joint. It was of very slow growth, painless, and only troublesome by its size. It was opened by a long incision, and the sac was peeled out by careful dissection. The adherence of its under part was very intimate with the deeper tissues. In the upper part, below Poupart's ligament, it formed a pedicle below the *adductor* muscle, which descended, to all appearances, deep into the pelvis. The pedicle was cut without a ligature. No bleeding ensued, but profuse suppuration set in, and the patient died from exhaustion on the twenty-fifth day.

A second case Dr. Michel saw under the treatment of another physician, with similar result. This was also a negro, twenty years old. The cyst was from below Poupart's ligament to the inner and middle thigh. The cyst was peeled out, and the pedicle ligatured and cut; but the patient died two months after the operation.

Two similar cases are reported from Velpeau's Clinics in Paris, but the result of the operations are not mentioned.

A fifth case is from Mr. Erichsen, and is reported by him in the *Lancet*, of 1856. All parts of the cyst that could be dissected were removed. The patient died the next day. At the post-mortem examination it was found that the origin of the cyst was between the adductor longus and brevis and beneath.

Mr. Erichsen, in his clinical lectures, mentioned also a similar unsuccessful case, in the hands of another surgeon.

Dr. Paget is credited with two more cases, the seventh and eighth, in one of which the operation seems to have been successful.

Dr. Michel then comments on the genetic origin and peculiarities of these tumors. He argues that they do not belong to

the class of spontaneous, accidental or independent cysts; that they are not produced by extravasation, nor by migratory, mobile elements, amœboids and other preëxisting established elements, but that the genetic origin of the femoral cysts proceeds from the peritoneal pouches or vaginal folds of the peritoneum, described by the anatomists and most common in the inguinal region and associated with defective development of tendinous fibres about the pelvis. Such pouches, he continues, will grow sometimes from a pedicle, and conform themselves into a cyst in a similar way, as a Graafian vesicle will develope itself into an ovarian cyst. These peculiar femoral cysts are connected with one of the natural outlets of the pelvis, and there is their starting point. Dr. Michel sums up with the words: "that all large femoral cysts, whether pediculated or isolated, spring from rare, congenital, funicular or invaginal processes of the peritoneum."

Although I do not claim to be a specialist in surgery, I thought this case important enough to report to the profession; first, on account of their great rarity, and second, on account of the modified treatment, which consisted in using the knife only for the larger and lower part of the tumor, and in attacking the upper part with hypodermic injections, so that the pedicle was not touched by the knife, but its vitality destroyed in a more harmless way. This method, though slower, seems to be more successful than the cutting of the pedicle either with or without ligature, which in nearly all cases seemed to prove fatal.

Two years and a half after the operation, I had occasion to examine my patient again, who claimed to be perfectly well. I found the pedicle still there, but diminished to half its former size, and perfectly painless. The tumor had entirely disappeared except in the lowest part, where there was a trifling accumulation of fat, perhaps because in peeling it out I had not cut enough away to loosen all the deeper connections. I recommended to him a few more injections into that small spot, but as it was not increasing and did not give him the least trouble, he thought injections unnecessary, and contented himself with brushing it over every night with tincture of iodine.

Article L.

Hyosciamine in Insanity Following the Puerperal State.—A Clinical Brief of Two Cases. By C. H. Hughes, M. D., of St. Louis.

Before the St. Louis Medical Society in January, 1881, the writer called the attention of the profession to the value of this valuable hypodermic agent in delirium and mania. Subsequently in the *Alienist and Neurologist* for April, 1882, a somewhat extended paper was presented discussing its "special therapeutic value in psychiatry" and referring to the experience of others to which the reader is referred for details here omitted, this paper, in fact, being a continuation of that as promised at its conclusion. (Vide A. & N. for Apl. p. 260).

The purpose of this note is to briefly record the bedside value of this excellent and prompt hypnotic in cases of insanity following the puerperal state even where a cure of the insanity does not result. These are the only two cases of the kind in our experience since the introduction of hyosciamine into the therapeutics of the psychoses, in which recovery did not follow its use, but, it may also be added, we have never persistently employed it to the exclusion of other hypnotics when the patient would voluntarily take the latter by the mouth.

The two facts concerning the therapeutic value of hyosciamine, which, as yet, are not definitely settled in clinical psychiatry, are as to its possession or lack of specified therapeutic properties in the cure of the psychoses and its superiority over chloral and the bromides, the circumstances favoring the administration of the latter being equal. That it is preferable to either under certain obvious circumstances in mental alienation cannot be questioned, but the true test of its value is yet to be furnished in its uncombined employment in cases which by their nature admit of recovery. Chronic cases of maniacal excitement and insomnia, merely tranquilized but not subsequently recovered through its administration do not fully prove its therapeutic value. We are apt to use hyosciamine when we can not use chloral, bro-

mides, etc. Whereas, the only way to satisfactorily establish the comparative value of the former is to give it to recent cases where other agents might as well be employed, and note comparative effects and results. It is to be hoped that some of the many hospital physicians who will read this hint may put the suggestion in practice and record their conclusions.

The views expressed in the paper of which this is a continuation may appear to some to be too dogmatic, but they are the deductions from quite extensive and satisfactory experience with the drug in the special direction mentioned, so that we give hyoscyamine a well-defined place in our therapeutic armamentarium to the extent indicated for the management of certain pyschoses.

The following case will illustrate its value in acute puerperal mania, with the usual delusional excitement and motor activity. The delusions in this case were varied and rapidly shifting from one subject to another. The patient's insanity was first displayed about the 1st of March, shortly after the birth of a child, in the delusion that she was commissioned to save the world from sin; but that delusion is now abandoned. She has been inclined to violence, having fought at those about her sometimes, and on one occasion having attempted to injure her pet dog. She pays no attention to her babe, and requires constant watching to keep her in bed.

In this case morphia and hyoscyamine were at first alternately given on account of her debilitated condition; as she improved in strength the hyoscyamine was exclusively relied on. When it was attempted to give her chloral in a glass of milk she refused it. No medicines could be given her per orem. The notes below are furnished by her attending physician. This patient will in all probability recover, and that in a short time, even if she is permitted to remain at home and be treated there.

AFFTON, MO., Friday, March 17.

DEAR DOCTOR: The patient has been more active up to 2 P. M., throwing off the bed-clothes and stripping herself naked. Refused all nourishment till about 7:30 P. M., when she ate an egg and drank six ozs. of milk. Since three P. M. she has been much more quiet. Visited her at three P. M. Pulse 84. Gave hypodermically 3 *m.* of the new solution, hyoscyamine, crystalized.—[Previously the non-crystalized was used, but having no reliable amorphous salt on hand I sent out the crystalized.—C. H. H.]—

but think some of it was lost by leakage, having neglected to sufficiently tighten the needle. In half an hour tendency to doze and in an hour she was asleep. Pulse 120.

Saturday, March 18.—The patient slept last night from nine to eleven, then turned about in bed and slept till one A. M. Though she did not sleep during the rest of the night she remained very quiet, at times absolutely so. She took no nourishment, except an egg, up to noon, imagining that it was poisoned, when she drank six ozs. of milk. In the evening she took another egg and the same quantity of milk. During the entire day less activity, both physical and mental. Pulse 78. Gave 3 *m.* hyoscyamine at 8:50 P. M., and at 9:20 P. M. she was quietly sleeping. Pulse 108.

Sunday, March 19.—The attendants report that she slept five and a half hours last night. Visited her at noon and found her about as yesterday. Pulse 76. She had taken no nourishment up to this time, saying, as before, that they had poisoned it. Asking her why they did so she replied: "For money." She was willing to take food from me, however, and did so, eating an egg, a small piece of bread, and drinking 16 ozs. milk. Eight P. M. She has taken in all to-day three eggs and 38 ozs. milk. Injected 3 *m.* hyoscyamine at 8:40, and in half an hour she was asleep. Pulse, before injection. 74; half an hour afterwards, 108.

Monday, March 20.—The patient slept five and a half hours last night. Has taken three eggs and 42 ozs. of milk to-day. Her physical condition is evidently improving.

I suggested to the husband on Friday that it would be best for you to see her again, but he said that he could not afford the expense, and would be obliged to send her to the asylum. He is now taking measures to that end.

Yours, truly,

FREDERICK KIDDER.

On the 23d of January, 1881, a lady living nine miles distant from St. Louis raving and delirious, with a form of mania, induced by frequent child-bearing—one child every year for the first four years, and exhaustion consequent upon prolonged lactation and other causes, had not slept for one hundred hours nor been mentally or physically quiet in that time. She would take no medicine by the mouth and no hypodermic hypnotic impression had been made by any effort of her physicians. Her

bowels had not moved in this time. Her pulse was ninety per minute and full, and her temperature 99° F.

The character of her delirium was inconstant, changing from one subject to another every few hours and alternately pleasing and self satisfied and angry and destructive, beatific visions and mundane fancies alternating. Her pupils were natural and skin was apparently normal.

A hypodermic injection of one-twelfth of a grain of Mercks' amorphous hyosciamine was given at ten P. M., a few minutes after our arrival, sufficed to put this patient into a prompt and pleasant sleep from which she only awakened late the next morning refreshed, and for a brief space, perhaps half an hour, tranquil.

The repetition of this method of procedure nightly with appropriate daily medication, was always followed by a like result as to tranquil sleep, with lengthened periods of mental and physical tranquility following. At the expiration of about ten days, complete mental clearness became manifest, displayed in the desire to see children and husband and friends, questions as to what had been the matter with her, pleasant, connected and rational conversations, etc.

But relapses followed the interviews with her husband and some of her family, notwithstanding the invariably satisfactory effect of the hyosciamine in inducing sleep, until the patient became sufficiently manageable to take chloral, and at the expiration of fifty days from the beginning of treatment she was committed to a private asylum for the insane in a distant State, where she now is.

It should have been remarked that the patient was removed from her home to the city at our suggestion on the morning after we first visited her. The organization of this patient was delicate and nervous. Her temperament was poetic and emotional and tastes æsthetic. Her education, which had been very liberal, rather overstrained her emotional and poetic nature and she was mated to a matter-of-fact, strongly physical husband. Her father committed suicide while her mother was *enceinte* with the present patient.

We detail only sufficient of the record to display the good effect of the hyosciamine, which must be conceded.

We have had similar experience in delirious and post parturient acute insanity, some of the clinical histories of which may, in the future, find place in these pages.

Translations.

Article LI.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

A New Electrical Treatment of Epigastric Pain and Gastric Troubles in Hysterical Patients.—M. Apostoli advises galvanization with the positive pole of the right pneumogastric, which has resulted favorably in his hands in twenty cases of gastralgia and epigastralgia and in eight cases of vomiting. The following are general rules applicable to this method:

1. Locality for applying.—Apply the positive pole of a continued galvanic current to a limited surface, outside and above the internal extremity of the clavicle; close the circuit by means of a large surface in the hand. In case of want of success, galvanize the left side, or better both sides simultaneously.

2. The Dose.—The amount must be varied according to the effect to be obtained, from five to fifteen milli-amperes. The answer of the patient is the best guide in this respect. If vomiting is threatened, increase; and decrease in the opposite case. For epigastralgia the sensitiveness which the patient evinces, upon making profound pressure with the hand, must be regarded.

3. The Time.—If it is a case of vomiting the patient must be induced to eat during the sitting, after having him prepared by a few minutes' galvanization. As regards gastralgia and epi-gastralgia, which are more often permanent symptoms, it is better to galvanize the patient at the moment the pain is most intense.

4. The duration.—This is as variable as the disease itself. M. Apostoli advises to *persevere until the effect is produced*, to continue from five minutes to an hour or more, if necessary, until the patient declares himself well; either feeling that he will no longer vomit, or that he does not suffer any more.

5. The number.—There is nothing certain in this respect the state of the patient regulating this. A single application may suffice for an intractable vomiting; a few weeks may be necessary to treat a gastralgia or epigastralgia which relapses more or less soon after the benefit produced by each sitting. If possible, one to two applications ought to be made daily.—[*France Médicale.*

BORACIC ACID OINTMENT.—M. J. L. Championnière recommends an ointmont made of vaseline and boracic acid as an antiseptic mixture which can be preserved indefinitely and is of great value, being non-irritating.

It forms a bland ointment suitable for superficial ulcers or wounds which are not to be irritated; it is applied on a cloth, on salicylated or absorbent cotton batting.

It can be used with advantage as an application for eczema and intertrigo, which although not parasitic, give rise to lesions containing and keeping them. There is no better topical remedy for the erythema of the buttocks of infants. It is an ointment always clean and aseptic to grease the finger and instruments. Wherever there is an irritated wound, it is a most valuable topical application.

Boracic acid is a less energetic antiseptic than carbolic acid; but its action, is nevertheless powerful. The author has successfully employed it in very fetid eczemas, and in fetid sweating of the feet. After washing the feet, the ointment is applied in the interdigital spaces; the effect is very good.

The following is the formula of the ointment:

Boracic acid finely powdered,	1 part.
Vaseline,	5 parts.

The acid must be very finely powdered and sifted and not dissolved in glycerine or alcohol, as this renders the mixture irritating.—[*Jour. de Méd. et de Chirurg Prat.*

ALTERATIONS OF THE CORD IN PHOSPHORUS POISONING.—The results of the researches of M. S. Danillo on this subject are as follows:

1. The alterations of the spinal cord in phosphorus intoxication must be placed in the class of myelites either central or diffused.

2. In cases of acute poisoning, the central nervous system

contains deposits of pigment of hæmatic origin. This has, heretofore, not been noted.

3. Large doses of phosphorus give rise to a central myelitis, along the whole length of the cord, with the formation of extravasation and pigment. Smaller and repeated doses give rise to a diffused myelitis, affecting the grey and the white matter.

4. Phosphorus thus presents us with a powerful means by whose aid we may excite, at will, an inflammatory irritation in the spinal cord, either localized in the grey matter, or diffused, that is occupying both the white and the grey matter at one and the same time.

5. A certain number of morbid nervous phenomena, observed during life, are to be attributed to the effects of one or the other of these two kinds of myelitis.—[*Paris Médical.*

THE CEREBRAL SEAT OF SUICIDE AND OF HOMICIDAL IMPULSES.—M. Voisin has written a memoir in which he endeavors to establish that suicidal ideas in the alienated are due to *functional troubles* and to *lesions* having their seat in the most internal parts of the ascending and parietal convolutions, and moreover that the dangerous impulses to suicide, homicide and violent acts, have their origin in these convolutions.—[*Gazette des Hôpitaux.*

CURE OF GLYCOSURIA AND DIABETES MELLITUS BY BROMIDE OF POTASSIUM.—Dr. Fèlizet, having had occasion to administer bromide of potassium to a diabetic patient subject to nervous disorders, noticed that the quantity of sugar diminished in proportion as the nervous troubles became better; he then made a series of experiments to determine in how far the bromide exerted any influence. Having rendered several animals diabetic by pricking the fourth ventricle and immediately giving intravenous injections of the remedy, he soon observed a diminution of sugar in the urine. Fifteen cases carefully observed during six years, permit him to affirm the cure of glycosuria and diabetes mellitus by the bromide of potassium; he supplements treatment by other means calculated to render useful aid.—[*Bulletin de l'Acad. de Méd.*

HÆMATOMA OF THE EAR.—In a monograph upon this subject, Dr. Sockeel arrives at the following conclusions:

Hematoma of the ear is not a special affection of the alien-

ated. It may be the direct consequence of a violent traumatism, but in the majority of cases, it is preceded by an inflammatory or hypertrophic degeneration of the fibro-cartilage.

These anatomical alterations are the predisposing cause; all congestions of the ear become intercurrent causes. The exudation of blood takes place between the perichondrium and the fibro-cartilage. Sometimes it begins in the thickness of the latter.

In the insane, hæmatoma of the ear is not a sign of cachexia or incurability. It is a benignant affection, but with the disadvantage of often leaving, after cure, a change, more or less marked, of the ear.

In a medico-legal point of view it has no importance. The disease cures spontaneously, but in such a case, the deformity is more marked. By cutting the ear, time is gained and the ultimate result is better.—[*Rev. Mens. de Lar., d'Otol., et de Rhin.*

F. KORNER WHO HAS MADE researches in that direction concludes that congenital myopia is extremely rare; he does not, however, speak of hypermetropia in the new-born.

M. LEPINE HAS FOUND friction sounds in patients having no lesion of the pericardium. Upon post-mortem examination dilatation of the heart was found.

M. SIREDEY HAS LATELY observed a complication of typhoid fever, not alluded to in the books in general use. It is periostitis, generally of the tibia, appearing during convalescence.

Proceedings of Medical Societies.

Article LII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, June 17, 1882.

Gun-Shot Wound. By Wm. Dickinson, M. D.

In a late issue of the *Globe-Democrat*, was published the narrative of a singular gun-shot wound, which excited so much interest that I wrote to the subject of it, asking for confirmation of the same and for such additional information as he might be pleased to communicate. To my letter his brother made reply quite in detail and graphic in description. From the published account and the letter received the following is compiled:

The subject of this sketch is David Block, now sixty-five years of age, a German by birth but for many years a leading merchant of Platteville, Wis. He was a soldier in the civil war in Germany in the year 1848 and 1849. My brother was wounded, as always supposed by him and all friends, by an ordinary ball from a musket or rifle, in an engagement; he was picked up as mortally wounded and taken to the hospital. Here he remained for six months, having gradually regained the partial use of his faculties. The "ball" entered and destroyed the left eye, also the sense of hearing in the left ear, and almost entirely those of smell and taste; and in this condition he remains to this day. Since the receipt of this wound he has been a great invalid, always suffering from catarrh in the head and more or less sore throat; headache; neuralgia; difficulty of breathing and at times nearly suffocated from a harassing cough; loss of appetite; dyspepsia; habitual constipation and great difficulty in micturition, at times requiring the use of the catheter. For this remakable and anomalous aggregation of symptoms he had consulted many physicians; by them various and very diverse causes were

assigned; but by no one was it suspected that his throat was stopped up by a foreign body, much less that in any way the symptoms were associated as effect and cause with the gun-shot wound received many years ago.

In March of the present year, declining very rapidly and apprehending his death was near at hand, my brother sent for me (then residing in California) to come and be with him during his last days, and afterwards to take charge of his business. At the time of my arrival he could swallow only with the greatest difficulty; obtain but very little sleep; had frequent and exhausting paroxyms of coughing, during which it sometimes seemed as though he would strangle; and for his urinary difficulty, the use of the catheter was required twice a day. For weeks after I arrived, his case appeared hopeless—it baffled the skill of his physicians. So much in perplexity were they in regard to the cause, but concluded that the symptoms were caused by "gravel in the bladder with disease of the kidneys." In consequence of extreme debility he was obliged to remain in bed the most of the time. During these four weeks I remained with him day and night. On a certain day I desired him to get up, and after much pursuasion I induced him to take a short walk; when he had proceeded about *one hundred yards* from the store, he was seized with a severe coughing spell, during which he coughed up a large mass of unknown character, hard and heavy which he received in his hand. At this event he manifested great alarm as to what it could be, and several neighbors ran to him to ascertain what was the matter. Meanwhile he hurried to me, then in the store, to show me the large mass which he had removed from his throat. "The smell of it was horrible; was like that of sulphur and brimstone and skunk, etc." I immediately weighed it on the scales; its weight was *one ounce and three-quarters* and its breadth measured one inch. After removing the substance that had accumulated on its surface, the foreign body proved to be the "cylinder and tube of a musket."

Thus the whole mystery of his wound and its consequences was solved. My brother now is confident, that, instead of having been wounded by the enemy, as he had supposed, the musket of his left-hand companion must have exploded during the engagement, and that the portions mentioned of the gun were driven into the eye and orbit, and for a time found a lodgement there; from thence it had gradually worked its way downward until it

reached his throat, from which it was happily dislodged, as stated, during the severe paroxysm of coughing. Since that time great relief from most of his symptoms has been experienced; his breathing has been slow and unrestricted; he can eat and drink as others; in short, he is like a new man, and is rapidly regaining his health and increasing in weight.

The violent entrance of this large foreign body into the orbit; its subsequent incarceration in the cervical textures; its long and perilous descent to a level from whence it obtained a release into the air passages so as to render its dislodgement and expectoration possible, a journey requiring *thirty-four* years for its accomplishment, suggest interesting themes for speculation. This case demonstrates anew the great tolerance of our vital parts, to lesion occasioned by foreign bodies.

DR. POLLAK.—Who is that reported by?

DR. DICKINSON—I saw it in the daily paper, and then wrote to the man's brother for further information. His brother corroborated the statement made by the paper almost identically.

An Artificial Membrana Tympani made of Elastic Collodion. By S. Pollak, M. D.

Mr. Toynbee, of London, was the first who made an artificial membrana tympani. It was a thin India-rubber disk with a wire stem, to facilitate its introduction. It was at best a mere shield to the tympanic cavity, preventing the ingress of foreign bodies, but of no value to audition. Disks of paper were substituted, but with no better result. Of late small pellets of cotton, moistend with glycerine were introduced, with marked improvement of hearing. But the greatest result in that line was achieved by the elastic collodion, both as a protection to the middle ear, and as a conductor of sound, as the history of the following case will abundantly illustrate.

A young lady, aged twenty, came to my clinic, suffering from a profuse fetid discharge from her *right ear* with *total* absence of hearing from her fourth year. After cleansing the ear with water, the membrana tympani was found entirely wanting. Not a trace of the ossicles was seen, and the tympanic cavity was filled with a granulating mass, almost of polypoid growth, which bled at the most delicate touch. The auditory canal and the mastoid process were in a normal condition. I poured warm alcohol into the ear, which had the effect of shrinking up the granulations

quickly. The use of alcohol for polypoid growths is now generally adopted and, in my hands, has always proven satisfactory. These granulations were easily wiped out with a little cotton attached to the probe, and the cavity of the tympanum was plainly exposed. As stated, not a trace of the ossicles nor the tympanic membrane was seen, but the foramen ovale and rotundum, with their membranes were in clear view. There was no necrosis or mere roughness of the promontory or any other part of the cavity. Hearing distance of the watch, on the meatus 0, the same on the mastoid process, the bone conduction of the vertex good, a proof that her deafness was not labyrinthine.

After treating the purulent otorrhœa for a few days, it occurred to me to try to improve her hearing by means of an artificial membrana tympani. I made a suitable pallet of absorbent cotton, moistened with glycerine, and adapted it carefully to the cavity. It improved her hearing about *one* inch. I left it in two days. Just about that time I read in the "Transactions of the International Medical Congress," in London, 1881, a report made by Dr. Krause, of Hamburg, Germany, about the use of *elastic collodion* in making an artificial membrana tympani. The idea struck me as being good and eminently practical, and I determined to try it at once with this patient. I followed strictly Dr. Krause's formula.

The patient having been placed in an absolutely horizontal position, I instilled first a few drops of a solution of tannic acid in glycerine—2 gr. to ʒi—which, being an astringent, was presumed would act beneficially on the suppurative inflammation; a few drops of elastic collodion were instilled upon that, and suffered to remain undisturbed until it solidified. In ten minutes I found that the collodion was unevenly spread. Thicker inferiorly and very thin above, so that it gave way in the upper part, and the glycerine oozed out. Most likely the level was not true, and the fluids, probably too large in quantity, gravitated downwards. So I took it all out, dried the ear carefully, and renewed my experiment. I was intent to have the level absolutely correct, I instilled only three drops of the solution of tannin in glycerine, and on the top of it three drops of collodion. In a few minutes solidification was effected; a beautiful membrana tympani, almost resembling a natural one, presented itself to my view, of equal color and probably of equal thickness. It was solid and strong, vibrating on inflation by the Valsalva

method. The test with the watch proved that she could hear it *seventeen* inches. The joy of the patient was only equal to my surprise and satisfaction, as well as to the pleasure of the numerous students and medical gentlemen. This was on Saturday; on the next clinic day—Tuesday—the artificial membrane was yet intact and hearing distance greater. But on account of the long existence of the purulent otorrhœa, I deemed it best to rupture the membrane, in order to enable me to cleanse the ear, and deseptise it. This was easily accomplished. A mere touch with the probe perforated it, let out the tannic solution and also some fetid pus. The same process was gone through as before, and a new membrana tympani formed in ten minutes, and with each renewal hearing improved, so that now hearing is *normal*, that is my watch is heard *forty-eight* inches.

Please follow me in the different steps of the experiment.

1. The quantity of tannin and collodion must not exceed three drops each. A large quantity of tannin is too heavy and too bulky for a thin film of collodion to resist; a larger quantity of collodion will not spread evenly, solidifies slowly and will be too thick for vibration.

2. The interposition of a fluid between the artificial membrana tympani and the drum is indispensable in order to enable the membrana tympani to vibrate. I have tried once to instil the elastic collodion directly into the cavity. It solidified quickly, it adapted itself accurately to the uneven surface of the cavity, but there was no hearing whatsoever. It was no easy matter to remove the collodion then. I had to dissolve it by pressing against it, absorbent cotton dipped in sulphuric ether, and gradually wipe it out. As soon as I returned to the first instilling of glycerine and tannin, hearing was at once restored.

3. The head must be on a perfect level while solidification is going on, any deviation from it will make the artificial membrane of unequal thickness, rupture easily and vibrate badly.

The *rationale* of this extraordinary result, appears to me to be, that the labyrinthic part of the ear is perfectly healthy, that the total absence of the drum, head and ossicles are the chief cause of her complete deafness (caused probably by the otorrhœa purulenta) the artificial membrane is a fair substitute for the natural one, and the interposing fluid assumes, in part, the functions of the ossicles. Instead of the membrane in the foramen ovale being driven in by the foot of the stapes, it is somewhat

impressed by the fluid which is set in motion by the sound wave, and which displaces the otolymph and thus impinges upon the membrana Corti or the acoustic nerve.

This lady patient of mine is very intelligent and very amiable, and if desired, she would present herself, properly escorted, before the society; I could then demonstrate to the satisfaction of all, the really marvelous results of this new apaliance in aural surgery.

DR. WILLIAMS.—I would like to ask the Doctor whether the author of this article advises the leaving of such an artificial drum in the ear permanently?

DR. POLLAK.—Yes; I presume so. He mentions the case of a lady that he has on hand, eighteen months, and whenever she ruptures the membrana tympani, she replaces it herself.

DR. WILLIAMS.—My judgment in the matter, or rather the explanation of the effect would be this: I would suppose that the foot of the stapes was in position.

Dr. POLLAK.—I couldn't see any ossicles.

DR. WILLIAMS.—I would suppose that the stapes was in position and that when this artificial membrane is formed, that it comes down in contact with, and rests upon the foot of the stapes within the vestibule. There is a strong probability that if the foot of the stapes were not in position there would be no effect what ever either from that or any other artificial drum that might be used. The case that the Doctor mentions is certainly very interesting, and I shall try the experiment the first opportunity that I get. I have had considerable experience in these cases of artificial drums, and I am in the habit of using, simply, a small pellet of cotton pressed into the external meatus and pressed down to the bottom of the meatus, and pushed as nearly as possible into the locality of the stapes—that is, against the locality of the foramen ovale. In some cases where this is used the hearing is restored and the results are very satisfactory, while in others it has no effect whatever. The explanation of this is probably, that in the cases where it succeeds, the foot of the stapes is still present, and in the failures it is entirely gone, so that there is no possibility of getting the impression carried to the nerve. This, at least is my impresdion. Some years ago I had some two or three cases from central Kentucky, which were

deaf in both ears, and these persons dressed their ears with cotton in this manner. I first got the idea of using cotton in this way from them. That was some fourteen or fifteen years ago. These ladies were relatives—cousins I think, and one of them said she got the idea from a neighbor. The lady was speaking about her deafness and an old lady—her neighbor—told her to take a ball of cotton and wet it, and pass it down into the ear in a certain manner, and she would hear better. She did so and sure enough it did make her hear. When I saw her she was wearing cotton and had been for several years, and she continued wearing it. She took it out occasionally and cleaned the ear, and then put in a fresh ball of cotton. This young lady's cousin had a similar trouble, and on using the ball of cotton in this way, experienced a similar relief. They could hear pretty well with these artificial drums in the ear, but they could not converse satisfactorily without them. These ladies had to place this piece of cotton in a horrizontal position in the bottom of the ear in order to get the effect from it. Some two years ago I saw a physician's wife in Topeka, Kan., who had had discharges from her ears for her whole lifetime, and the drums were almost completely destroyed. I used one of these balls in her ears and it improved her hearing very decidedly. I remember another case that I examined some years ago in which the membrana tympani was not injured; at least there was no perforation of the membrane. A pellet of cotton was used and, strange to say, it had the same effect upon that patient as in the other cases I have just mentioned. The explanation of the action in that case was about as follows: I suppose that the incus and stapes were separated from some cause or other so that they didn't come together, and when the pellet of cotton was introduced, it simply pressed the membrana tympani inwards so as to bring these bones together and in that way enabled the patient to regain the hearing.

DR. POLLAK.—The cotton pellet, as the Doctor describes it, is not the same as I make, nor could I ever make it in that way. He compresses the cotton firmly, while I have been obliged to make a very thin layer of it, very thin indeed—only few a fibres—just enough to form a thin layer. Now if we use water it evaporates too quickly. Glycerine keeps moist longer.

Persistent Hiccough.

DR. BARRET.—I have a very interesting case to mention; a case of unusually persistent hiccough. The patient is a man thirty-five years of age, of good healthy constitution, who, five days ago, was taken with hiccough and with the exception of two or three hours, has been troubled continuously with the hiccough. His functions were in good order; his appetite has been good until to-day, when he was somewhat nauseated, but I think it is rather from the remedies that he has taken. It is more persistent than anything of the kind that I have ever seen before, and I would like to have some one suggest a remedy.

DR. LUTZ.—I would suggest that the Doctor pour collodion on the pit of the stomach externally. It is one of the remedies that is employed in hiccough and vomiting, in surgical peritonitus. Hiccough is simply a nervous disturbance of some kind, usually obscure, and collodion is said to allay, temporarily at least, the trouble. You know it is due to a spasm of the abdominal muscles, and while I never tried this remedy in a case of peritonitis, I would suggest that the Doctor try it.

DR. FAIRBROTHER.—I would like to have Dr. Barret tell us what he has done?

DR. BARRET.—I gave chloroform, bromide of potash, I tried opium and to-night I gave him a dose of quinine.

DR. POLLAK.—I had a case for most twenty years, perhaps it lasts to this day. I couldn't relieve it at all. It was an old lady and her husband was compelled to get a divorce from her. He couldn't sleep with her. It was most unpleasant. She was a strong healthy looking woman but nothing would relieve her.

DR. ROWLAND.—The case just reported reminds me of a very interesting one of the kind which I formerly had under my observation. I never treated this case, but have known of it for two or three years past. He is a gentleman, who when I first saw I supposed to be drunk. The man is in fine health, about thirty-five years of age, and informed me that he had had this hiccough for some ten or twelve years almost constantly when awake, and often when asleep. He stated that he had been treated for it by a number of physicians and was able to tell a number of remedies he had used, and his statement of the case

and the treatment was such as really to make me think the case was rather a hopeless one. He didn't ask me to treat it. I don't know the particulars of the commencement of the attack. I was reminded of the case by the cases that have been reported.

DR. BARRET.—How frequent are the spasms?

DR. ROWLAND.—He generally hiccoughs once or twice a minute, all the time. I have never been in his presence without noticing it. In this case there is no noise emitted, as he is a strong muscular man, and my impression is that he suppresses it so that it is not audible at any considerable distance. I wish I could report the case more satisfactorily.

DR. RUMBOLD.—I recollect seeing a soldier in Jefferson Barracks, who had hiccough, who died after the fourth or fifth day of the attack. At a medical society at the Barracks, I stated that I believed there was an abscess in the neighborhood of the stomach or between the stomach and diaphragm, so that the phrenic nerve became involved. When the post-mortem examination was made, we found an abscess between the diaphragm and the stomach. I don't know whether the abscess was the cause or the result of the hiccough, but these are the facts of the case. In this case we used chloroform both internally and by inhalation, sulphuric ether, and morphine, and we applied a Spanish fly-blister to the surface over the stomach, but nothing that we did gave the least relief.

DR. MUDD.—I hope Dr. Barret will report which one of the remedies is successful, at the next meeting. I would like to ask Dr. Pollak a question in regard to his case. The Doctor is making observations constantly upon the ear, and as a matter of physiological interest I should like to ask whether in these suppurative troubles of the middle ear in which the membrana tympani has been destroyed, the stapes retains its position and its integrity as a rule; and whether it is not generally destroyed in these long continued suppurative troubles? The arch of the stapes is very delicate and slender, and I would like to know if it is not likely to be destroyed. I would like to enquire also of Dr. Pollak, concerning the result of a case, a specimen from which was presented here about a year ago; the specimen in which there was the greater portion of the temporal bone, a portion of the carotid foramen—showing a portion of the carotid canal. I would like to know the result of that case.

DR. POLLAK.—In regard to the second case, I will say that I have not seen it for two months, but the last time I saw it the patient was perfectly well, had increased in weight and was just as active as could be. Of course the hearing in that side is not possible. There was only the slightest paralysis in one side of the face. Otherwise the child was perfectly normal. The meatus looks like a cul-de-sac, but nothing could be seen externally.

DR. DICKINSON.—I happened to be in London at the time that Dr. Toynbee was making his experiments on an artificial ear, from which he had great expectations. The tympanum was made of rubber and was replaced by means of a wire, but it failed on account of the irritation which it caused. In regard to this case of hiccough I would like to remind the society of a case reported by Dr. Moore, which persisted for eighteen or twenty years, the result of an accident upon which the hiccough suppervened.

DR. ATWOOD.—I saw the case reported by Dr. Moore; the patient came to see me. The child was injured and the hiccough supervened and has persisted since. The patient is about eighteen years old now, but the hiccough never ceases except when he is asleep.

SATURDAY June 24th, 1882.

Cancer of the Stomach.

DR. LUTZ.—I have a specimen here which is interesting both on account of the history of the case and the pathological condition that was found at the post mortem. Dr. Wesseler will give the history of the case. I saw him only on one or two occasions, for the first time to make a thorough examination of him about three days before his demise. He was then extremely emaciated and vomited incessantly. He couldn't keep any food at all on his stomach, and hadn't had a passage from his bowels for twenty-seven days. A physical examination of the abdominal cavity revealed considerable distension and in the gastric region nearer the left than the right could be distinctly felt a very irregular tumor. Between this tumor and the margins of the right ribs and the hepatic margin there was distinct resonance; whilst the tumor itself on percussion gave a dull sound. To the left of the tumor, towards the left cartilages and in the left

inguinal and lumbar regions there was dullness to about a line let fall beyond the middle of the axillary space. Anterior to this line there was resonance, posteriorly dullness. The abdominal anterior wall below the tumor was resonant, so much so that the area of dullness was confined to the left inferior portion of the epigastric and the left superiror corner of the umbilical regions. To judge from this man's history, such as I learned from him, and from what I saw and learned from observation and exploration, I concluded that the man had cancer of the stomach, and I so expressed myself. He died three days subsequently without having had a passage from the bowels for thirty days, and it had been quite a considerable time since anything that he had eaten had remained on his stomach. In making the post mortem examination, an immense quantity of straw colored serum escaped, so much indeed that we had to turn the corpse on its side and allow it to escape in that way; and I should judge that two gallons if not more of this same fluid escaped from the abdominal rent. On placing the corpse in a supine position again, it was found on examination that the contents of the abdomen—the intestines, the descending and ascending colon, and the small intestine—had been drawn together forming the lump that was felt in the side that I have described, and that the resonance which was discovered to the right and left of these matters was produced by the absence of any any contents. Posteriorly there was a vacuum, as it were. I found in the ascending colon what I took to be a cancerous deposit —a very small place, I suppose about the size of a small pea; but in no other portion of the alimentary track did I find any of this deposit. The bowels were completely empty; occasionally we found swelling along the track, and occasionally a small piece of fecal matter could be felt. The liver was found free of any deposit, as was also the spleen. Now this tumor was composed of the stomach at the transverse portion of the colon as it passes along the lower border of the stomach and is connected to it by the omentum proper. Now what remained of the omentum proper was a strip that I will show when the specimen is examined, perhaps the size of a finger's thickness, and its lower end was firmly attached to the anterior abdominal wall, perhaps an inch and a half to the left of the umbilicus. The parietal peritoneum was thickened, indicating peritonitis of old standing. There were no adhesions between the various coils of the intes-

tines except those portions that were united to the tumor, and they could be separated without exerting any force. A few of the glands of the omentum were enlarged; the adipose tissue seems to have been absorbed. Then there was this tumor, confined as we subsequently learned to the stomach and the transverse colon. The specimen, as you will observe, shows the stomach to have been very much diminished in its various diameters. Its longest diameter, from the pyloric to the cardiac extremity, is perhaps four inches, it might have been five inches and has shrunken some from being in alcohol; then its diameter from the smaller curvature to the larger curvature is perhaps two and a half inches. The disease which I take to be scirrhus began in the neighborhood of the pyloric orifice and did not involve the orifice itself, but rather extended around it involving the anterior and posterior walls of the stomach, but as is the rule not encroaching upon the duodenum. You will remember that, when last fall, I spoke in the society upon the performance of gastrostomy, I mentioned the observation of Rokitanski who found in a very large number of post-mortem examinations of cases of cancer of the stomach that the disease very rarely encroached upon the duodenum. Here is another case illustrating that point. The pyloric orifice of course is contracted and it is scarcely large enough to admit the ordinary blow-pipe. It seems to me that the disease began originally near the pyloric end, and as a result there was a dilatation of the stomach above that. You will find that the stomach in the cardiac extremity is as thin as parchment paper almost. You can see your fingers through it. As I take this case to be one of cancer of the stomach it is quite natural that I should say whether or not such a case was one amenable to treatment surgically speaking; whether or not this would have been a proper subject for gastrostomy; whether by this operation the disease could have been excised. Well, as in all these cases, I would say that if the diagnosis had been made when the disease was limited to the pyloric extremity, this would have been as favorable a case as any that I could imagine for the operation for this reason: When we have a case in which there is no infiltration of any matters in any of the abdominal viscera except the stomach we have a case in which evidently the disease is limited to the pyloric end without encroachment upon the duodenum; and the man evidently possessed considerable vitality, considerable power of resistance, and

if the diagnosis could have been made early enough I think this was one of the cases such as justify the operation. Now this man was sick I believe for two years, possibly two and a half years. He was treated at the city hospital, and after staying there some time came under the care of Dr. Wesseler in the hospital. Nothing can be done for these cases. It was simply a case to be let alone, to watch and wait until the patient dies and then get a post-mortem.

DR. WESSELER.—This patient was in the hospital about two years ago—it may be a little longer, it may be three years, and was treated for intermittent fever, and whenever he had this attack of intermittent fever, he suffered from indigestion. The man was badly nourished; and weighed much less than a man of his size should; there seemed to be malnutrition. No matter what was given to him he didn't assimilate it. The man was rather dull. His general appearance indicated that he was suffering from malnutrition. He remained in the hospital I think five weeks and was then discharged considering himself able to work and I didn't see him any more for some time. It was along in the cold weather that he came to my office and said he couldn't keep any thing on his stomach and I at once suspected that there was malignant trouble. I prescribed something to quiet him and to relieve this vomiting. He felt better when he was taking the medicine but the moment that he stopped taking it the vomiting came back. I treated him for two weeks, perhaps. I didn't see him any more for five weeks, I suppose five weeks before he died, when a messenger came to ask me to call at his house and see him, and I then found that he had been at the city hospital, was very much dissatisfied and was very anxious to be received again into our hospital. He begged me to take him and after making an examination I found from the condition that he was in there would be only one satisfaction in taking him and that was to make a post-mortem. I made a diagnosis of cancer of the stomach, with the complication that the abdominal parieties were adherent; there was no motion, there was absolute fixation of the abdominal parieties, and the contents of the abdomen. I asked Dr. Hickman to make an examination and he was of the same opinion, that the contents were tied down, they were firmly fixed. During the last four weeks of his life—I might almost say

for the last five weeks from the time he entered the hospital there was really abdominal effusion, and this effusion continued to increase from day to day. There was nothing passed through the bowels at all, all that he took seemed to be regurgitated.

The only thing that was of any value in this case was morphia, and we gave sufficient of that to make his suffering bearable; which I think is the humane way of treating these cases which are incurable, and I certainly could not give my consent toan operation for the removal of the constriction, and especially am I opposed to it since I have seen the post-mortem, since I have seen the adhesions that are there. In this case I am quite certain that the stomach could not have been released from the adhesions that had formed, without a fatal result. The case was very instructive to me. I have examined a good many cases of cancer of the stomach, but have never met with one in which the adhesions were so firmly fixed, and all the parts tied down with such firm bands as they were in this case. I never saw such a mass tied up together around the stomach.

It was the result of inflammatory action I think. The abdominal peritoneum was very much thickened like a piece of leather; and there was one piece of the omentum apparently adherent to the left wall of the abdomen. The case began as I said in intermittent fever.

DR. DUDLEY.—I would like to ask the doctor the age and occupation.

DR. WESSELER.—To the best of my recollection he was forty-one years of age, and he worked in a car-shop doing laboring work, but what had been his occupation formerly, I don't know.

DR. HURT.—Was he a drinker of whiskey?

DR. WESSELER.—The man, I believe, was not altogether opposed to taking a drink, but I don't know that he was what might be called a hard drinker.

DR. JOHNSTON.—If this case had been diagnosed sooner I think it would have been a favorable case for operation. Samuel D. Gross on surgical pathology has advocated the local theory of cancer, that it arises in a cell formed by particles of plastic matter which are united in such proportions as leads to this dis-

ease we call cancer; and I take it for granted that this material —this cell is arranged by the nutritive fluids and supplies of life, and that in consequence of the presence of this cell—the living organism is capable of becoming diseased; and that this cancer cell being diseased will inevitably disease the next cell and so on throughout the whole of the human organism. Now if this be the case, if you exsected the cell it would not cure the disease, because the material therein might infect the next cell, as the system furnishes the same material, the next cell may be infected; so that we do not get rid of the disease by removing the part that is diseased. I remember some five years ago a case of epithelioma of the penis was operated on by Dr. Hodgen at my suggestion. The case had been treated for some time before; and was supposed to be a case of syphilis; that man is still living but he has a cancer in the left leg, and this occasionally breaks and a yellow water runs out. In this case the operation was justifiable because the penis was very offensive. I think it is justifiable to operate in these cases where the patient is a misery to himself, we can prolong his life often for six months; but I don't think that it has a local origin and that when the diseased part is removed we have cured the patient. We must go farther back.

Dr. LUTZ.—While there may be some dispute as to whether the theory as given by Dr. Johnston would explain the pathological condition, it is a fact that the doctor in his zeal to defend the let alone, do nothing and expectant policy in the treatment of the disease has forgotten that Saml. W. Gross has gained his high reputation during the last two years. Dr. Gross has had some experience in removing cancer of the mammary gland, I believe, and from this pathological research on a number of these cases he has founded his theory. We cannot now say whether cancer has a local origin; and the microscope and the crucible of argument cannot demonstrate that it is a constitutional condition. We speak of the recurrence of the tumor, and speak of its transmission to various members of the family, and we speak of the deposit of some kind of material which removes from one place to different organs of the body, and yet who knows what that substance that causes the irritation is, which is so active. I am decidedly of the opinion, and I think it is the opinion, of the profession that, whenever you have a

malignant neoplasm in an accessible organ, or in an inaccessible part, it is the duty of the surgeon, which he owes to the patient and to himself, to remove that neoplasm; and if the surrounding parts are involved it is his duty to remove as much as possible. Now, if we have a case of cancer of the mammary gland, we might say we will not remove it because it may recur in some other organ of the body. But what is the rule? What would a conscientious man do? He would remove the cancerous gland. The question which necessarily comes up in a case of cancer is: "Is this an organ that can be removed—will it be for the benefit and welfare of the patient?" And such a question as that cannot be determined in a debating society, by talk; it must be done by work at the bedside, by operations. Who now says that gastrostomy cannot be performed or is not a justifiable operation, and yet it had to be performed before it could be determined whether it could be done safely or not. No man can tell whether an operation is justifiable or not without trying it; he cannot tell whether it will be successful or not until it is tried. It has been demonstrated that it is perfectly consistent to remove cancer of the stomach where it is diagnosed early enough. Dr. Johnston a moment ago stated that he gave his consent to the removal of a cancerous penis; now if this theory that the doctor has advanced is correct he never should have given his consent to that operation. But I think that practically he did right.

DR. DUDLEY.—I would like to inquire if hereditary predisposition plays any part in this affection?

DR. LUTZ.—That is a question that requires a recital of statistics that I have not at my finger's end; but I have been reading during my spare moments a work by Dr. Purcell of the cancer hospital of London on "Cancer and its treatment" and from that it appears that in the large majority of cases of cancer there is no direct hereditary transmission; at least none could be demonstrated. Dr. Purcell has exceptional facilities for obtaining information, and he positively states that no hereditary transmission can be demonstrated in the majority of cases of cancer. He admits that there are some cases in which the father or mother, or possibly the grandfather or grandmother of the patient had suffered from cancer, but he says in the majority of cases it cannot be demonstrated.

Experience teaches us the difference between malignant and non-malignant tumors. The non-malignant are more circumscribed, the malignant very diffuse, and this is the reason why, in operating upon cancerous tumors we take away as much tissue as possible. If a few cancer cells remain there is a new nidus for another cancer. Now, if this is correct, it follows that if the tumor could be diagnosed early enough; that is, at a time when there is little diffusion, when it is very much circumscribed, and it is where we can get at it and remove it, we might expect that it will not return; that is so far as the experience has gone at present.

DR. WESSELER.—My objection to the operation on the stomach is that the stomach has to be used every day; a man can not live without using the stomach—not very long. It is not like a case where ovariotomy is performed, where we may open the abdomen and perform the operation without interfering materially with necessary functions, but with the stomach the functions must be performed, and these functions will certainly be interfered with. In these cases there is danger of doing great damage. Where the cancer is in a part in which it is not dangerous to remove it, such as the penis, I think it can be removed very well because it is outside and there is no injury to any other part, but when we remove it from the stomach we have to cut pretty near to life. I think it is a serious objection to the operation, and then we cannot say that it will be successful; it may be a failure.

DR. JOHNSTON.—I would like to hear from Dr. Hughes on the subject of cancer—do you think it is a local trouble or not?

DR. HUGHES.—It may be conceded that great harm has been done in surgery by characterterizing cancer as a constitutional blood disease; and it must also be conceded that there is a constitutional diathetic factor in malignancy, that malignancy itself presupposes the existence of a constitutional diathetic factor which determines the trophic change which displays itself in the cancerous structure. Else why is it that in one person you may have a prolonged irritation—a local irritation with nothing but benign results, you may continue the irritation throughout life, and at the end of the person's existence you will have a benign tumor, and the patient die of something else; while in another person, and in other families you have a certain amount

of local irritation beginning with a benign tumor and if it be permitted to continue for a certain length of time the benignity passes the line and degenerates into malignancy. If you have a disposition to cancerous change it is because you have in one person a diathetic factor that doesn't exist in the other and which predisposes and predetermines the cancerous disposition of the one, while the benign tumor persists in the other. Now Mr. Purcell may say, and may find from statistics that in the majority of persons there is no ancestral history of cancer, but he has not gone farther into the chain and ascertained if there were evidences of other diathetic conditions connected with the nervous system. Now the condition of system which determines the change—which displays itself as cancer in one family and benignity in another as a consequence of the same local irritation—is an inherent defect in the trophic nervous system by which the cancer is produced in one and is not in the other. There is no other rational explanation, you cannot cover the fact of transmission, nor can you cover an occasional morbid product from a local irritation unless you have a factor determining that departure from the ordinary condition of the trophic nervous system. You may apply the same principle throughout the whole economy; you may take two individuals possessing apparently the same mental organism, and subject their cerebri to the same psychical strain. We see some persons who during the course of a long and trying life stand unshaken, unshattered unscathed apparently, and we wonder that they stand while others under what seems to be much less irritation, succumb to mental aberration because of the fact that there is in them an inherent condition of the nervous system—an inherent diathetic condition, which predetermines that upon a certain amount of irritation there shall be a departure from the normal standard of mental action. So it is with apoplexia, so it is with epilepsia. You might start two individuals out in life who are subject to the same irritation at a certain age, and one has convulsions and the other has not; one has epilepsia and the other has not. And so it is in regard to lower down in the cerebro-spinal axis; the manifestations of spinal trouble, of spinal irritation, appear in one when they do not appear in the other, and that is the sum of the whole matter. It is not an inherent, transmitted condition of the blood. If the blood were cancerous the individual predisposed to cancerous degeneration under a given

amount of local irritation would display cancerous elements in his blood. But it is a trophic change that makes this departure from benignity into malignity. So that the true surgical rule in view of the fact is to remove every tumor in its benign stage if possible, and if the surgeon is in doubt as to the character of the tumor he should remove it anyway. Why is it that these malignant tumors so often return? The microscope reveals no change of the blood by which it can be determined that there exists any of the elements which will make a cancerous tumor, and yet the slightest irritation serves in many of these cases to bring back the local pathological display. Of course, they do not always return. It is not therefore in the blood. It is not because cancer is a purely local disease; but it is because there is in the trophic nervous system an inherent condition by which it occasions an abnormal response to a prolonged local irritation. That is my view of the cancerous diathesis, and the relation of the cancerous diathesis to the local trouble. I believe that the cancerous diathesis is interchangeable with the neuropathic diathesis; and I believe that a careful examination into the family history of patients affected with cancer will reveal the fact that where one branch of a family at a certain time of life, when the degenerative changes begin to appear, displays cancer; another branch of the family will display some other form of neuropathic disorder; and I do not hesitate to say that I think the time will come when it will be recognized that an essential factor that predetermines cancer is the trophic nervous system; and that the cancerous diathesis is allied to the neuropathic.

DR. DUDLEY.—I gather from the doctor's remarks that he thinks cancer never occurs without an hereditary predisposition?

DR. HUGHES.—I maintain that there is a diathetic factor in the development of cancer.

Article LIII.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty-Fifth Annual Meeting, held at Brittingham Hall, Hannibal, Mo., May 16–17–18, 1882.

Second Day, Wednesday, May 17, 1882.—Afternoon Session.

Report on Progress of Diseases of Children. By Dr. J. P. Kingsley, of St. Louis.

It is but lately that diseases of children have received any consideration. A section was devoted to them at the late International Medical Congress, and one was established in the American Medical Association last year. Our association has deemed the subject of sufficient importance to give it prominence. There are peculiarities connected with these diseases and conditions to which they are subject, such as their rapid course, etc., which make their study an important one. Dr. West remarked last year, at the meeting of the International Medical Congress, that thirty years ago no city had a hospital for children; now, almost every one has one.

There are many of you who can remember when the typhoid fever of children was called remittent or even *worm* fever. It is only lately since the diseases of the heart, in children, have been noted. No classical cases of rheumatism are found, or at least but seldom, they being apparently mild attacks but the heart is prone to be affected. Prof. Hirschsprung says that many vascular affections owe their origin to a mild rheumatism in children.

We find ourselves, to-day, able to diagnose diseases of the lungs, in children, with the same accuracy as in adults.

In the Children's Hospital in London, I saw tapping of the pleura for empyema; of the scrotum with a hypodermic syringe, for hydrocele; I witnessed quite a number of circumcisions by Dr. Owen, for irritable bladder and rectum, frequent erections and even for diarrhœa. The importance of this last operation is universally recognized. The essential paralysis due to acute softoning of the anterior grey columns of the spinal cord, diph-

theria and its identity with membranous croup, etc., have been almost clearly defined. In regard to the treatment of diphtheria, the administration of pilocarpine has not proven of marked benefit. The profession has been disappointed in the use of this drug. Dr. White, after having tried several solvents for the diphtheritic membrane, thinks the best to be acid glycerite of pepsin. You can verify this by placing pieces of the membrane in test-tubes, together with the solvent, and heating to 100°-110° F. I cannot speak knowingly of this, not having used it.

Robert Lee. of London, speaks of remedies in whooping cough, such as turpentine, creasote, benzoin, stirring tar with a hot poker—this being used in hospitals. Not infrequently chloroform with a hard-ball atomizer. Bromide of potassium and chloral internally ensure rest at night.

L. Scherff has lately written on the symptomatology and the etiology of the insanity of childhood. The causes may be due to inheritance, education, traumatism, constitutional or chronic diseases, onanism, mimicry, intoxication from opium and alcohol, etc. He expresses the fear that not a few physicians, by not giving appropriate advice or warning or by overmedication, may be responsible for a great many cases.

Rœtheln, until a year ago, was not recognized as a distinct disease; some contend yet that it and measles are the same. I regret to state that there are yet physicians who confound these diseases. Our knowledge warrants us in making the following conclusions: Rœtheln is an acute, contagious, constitutional affection, distinct from measles and scarlet fever. In the premonitory stage there is absence of coryza, lachrymation, etc., furnishing a marked contrast. One attack furnishes no protection for future ones.

Jothathan Huchinson, some years ago, pointed out the characteristics of teeth pointing to syphilis. Lately, others have shown the same lesions to be due to other causes. Dr. Magitot, of Paris, has shown that other affections cause this defect in the teeth. Huchinson says that only the upper middle incisors of the *permanent* set are to be depended upon. He also says that the tooth is diminished in size in all directions. The screw-driver shape is almost as conclusive.

Vaccination has experienced quite a revolution. Many have returned to Jenner's method, and bovine viris has almost superceded arm to arm vaccinntion. Now it is an astonishing fact

that its use is not attended with danger; the constitutional disturbance is not increased; there is no danger of conveying any disease or constitutional taint, and it takes as well as the humanized. Unscrupulous men have gone into the business of supplying bovine virus, and it is not surprising that complaints have been numerous.. Besides good virus will fail in inexperienced hands. Dr. Martin says that the best method of dissolving is with water, rubbing it up slightly. The incision should be made so slight as to give the barest exudation of blood and then the virus should be thoroughly rubbed in.

DISCUSSION.

DR. SCHAUFFLER, of Kansas City.—I agree with the teachings of the paper, and I especially concur in regard to the failure of pilocarpine in diphtheria. It has been faithfully tried by a number of physicians in Kansas City and while they obtained the characteristic effects, they have not succeeded in saving their patients, and it rather embarrassed the respiration than otherwise, by inducing a profuse secretion in the bronchial tubes. It did not prevent the re-formation of the membrane and the patients perished in as great distress.

I do not believe that bovine will take as well as humanized virus; neither do I believe that we have suddenly become so dull as not to be able to vaccinate. I have vaccinated case after case, two, three and four times with bovine virus fruitlessly, and succeeded after that with humanized virus. I believe that it is safe enough and a great deal surer than the commercial article. I never saw so many nor such bad arms as from bovine virus.

DR. MITCHELL, of Lancaster.—I have used Mr. Martin's virus altogether and with few exceptions it served its purpose well. I had some patients vaccinated once or twice before and sometimes one vaccination puts a patient in such a condition that the virus will not work any more. Then again, there were some where it took the first, second and even third time. Flint says we ought to vaccinate and revaccinate until it won't take any more.

DR. POTTER, of Cameron.—There is a point as to the relation between chorea and rheumatism and it is a question of great interest to me, as I have had three cases of chorea following rheumatism. I have searched medical literature to find the cause of this, and have found a great many theories and I have none to advance. J. Hughlings Jackson claims that it is caused

most likely by endocarditis, a part of the deposit on the valves separating. That theory seems to me without sufficient foundation. It seems to me that clots and emboli would be the result. My opinion of what I observed is that the cause is from a disturbed circulation in the brain on account of the imperfect action of the heart. I have watched these cases very closely. In two girls, aged respectively ten and five years, I have noticed that, as the heart improves the chorea subsides.

DR. PREWITT, of St. Louis.—There is said to be a close relationship between scarlatina, diphtheria, etc. This is confusing things very sadly, besides being directly adverse to the general drift of to-day, which is to indicate the specificity of diseases. This is increasing constantly, and to throw together a lot of diseases and say that they are due to the same cause, is illogical and unphilosophical. A number of years ago, Jenner wrote to show the difference between croup and diphtheria. A few years later an article appeared to show their identity. I see here many old practitioners, and I venture to say that, in their early practice, they never heard of diphtheria; but they met with membranous croup. They did not see epidemics as they do now. I venture to say that it is sufficient to convince them that it is not the same thing.

We have, for example, plastic bronchitis—a complete tree almost thrown out; the material is amply sufficient to produce symptoms of membranous croup. We do not call it diphtheria. Why should we not? Here in the trachea, it is the same thing. Why should we then say that they are one and the same thing? The symptoms of croup is an obstruction of the larynx. In croup, pure and simple, if the patient gets rid of the membrane he gets well, and we do not find the characteristic symptoms of diphtheria left. You do not find the paralysis, the blood-poisoning, etc., hence, I cannot see the necessity of declaring them one and the same thing.

On Christmas day I operated on a patient for obstruction of the larynx, the man ceasing to breathe before the trachea was opened. Artificial respiration was resorted to, to no avail. I took out the tube, passed in my finger and out came a cast of the trachea, which almost completely blocked it up. Most assuredly this was not diphtheria.

DR. MOSES, of St. Louis.—I wish to support Dr. Prewitt in

what he says, membranous croup is entirely different in symptoms, aspect and cause from diphtheria.

The connection of chorea and rheumatism is exceedingly interesting. We have chorea where there has been no rheumatism and no cardiac symptoms exist. I have a patient under treatment, and perhaps toward recovery troubled with a neurasthenic disease. It requires still further study in regard to these choreic convulsions.

Vaccination cannot be lightly passed upon. It too closely concerns not only the physician but every one. We are born with a predisposition to small-pox. To bovine virus we must look as an effectual protection, and therefore cannot be too particular from what source this protective agent is derived.

DR. HUGHES, of St. Louis.—I will not take more time than is necessary to protest against the current opinion that chorea is essentially connected with rheumatism. Because they are associated, the argument *post hoc* does not warrant us in concluding that one is the consequence of the other. It is often the fact that a search for any valvular difficulty upon which to found any possibly dislodged embolus is fruitless and chorea is often found alone and without any previous rheumatism.

I also wish to protest against adherent prepuce being regarded as being the cause of all children's diseases and against its being regarded as even a possible cause of rheumatism.

Article LIV.

American Dermatological Association. *

The Sixth Annual Congress of the American Dermatological Association, which has just finished its session at Newport, was very satisfactory as regards the attendance, and very successful as regards the number and high standing of the papers presented. It held two daily sesions on August 30 and 31, and one on September 1.

Dr. J. Nevins Hyde, of Chicago, President of the Association, besides delivering an annual address, read a paper on "Papillary Dermatitis of the Hairy Scalp," in which he reported several cases of rare form of skin disease situated at the junction of the back of the neck and the scalp. The surface, though swollen, does not appear diseased, but the patch, which rarely exceeds the size of the palm of the hand, is distinctly circumscribed.

Puncture of the part gives exit to a considerable quantity of pus, followed by a gummy fluid tinged with blood. The disease is non-parasitic, and appears to be due to an inflammation of the follicles of the skin at the part named.

Dr. C. Heitzmann, of New York, read two papers, one on "Myxo-Angioma of the Skin," and the other on "Ergot in some Forms of Skin Disease." The first referred to a very common vascular growth which contains new vessels and is therefore a true angioma. The superficial form also contains homogeneous substance, plastids, granular matter, etc., which the author regarded as myxomatous. The treatment advocated was extirpation with the scissors when the growths project, and the application of lunar caustic to the base, or smoking nitric acid applied directly, when the growth is sessile. Electrolysis was also recommended. In the second paper the use of ergot was highly commended in pruritus, acne, and some other forms of skin disease, given in half-drachm doses of the fluid extract several times a day.

* Philadelphia *Medical Times* report.

Dr. Robert W. Taylor, of New York, read some "Notes on Psoriasis," in which he reported that he had traced in about one-fourth of his cases a syphilitic history in one or both parents, as had been suggested by Erasmus Wilson. He submitted the question for further investigation by members of the Association.

Dr. George A. Rohé, of Baltimore, reported two cases coming under his observation, where general psoriasis had followed vaccination with bovine virus.

Dr. Henry G. Piffard, of New York, in a paper on "Calx Sulphurata," endorsed the statement of Ringer that acne can be successfully treated with sulphide of calcium. He stated that the dose ordinarily should not be over one-eighth to one-sixth grain; he thought failures had occurred from giving it in too large doses. He also pointed out that the composition of the drug was very variable, and some specimens he had examined had contained little or none of real calcium sulphide, although dispensed for it by the druggist. He also had good success in the treatment of eczema in children and in non-specific sycosis in adults. As a remarkable fact, he had observed that in diabetic patient the sugar completely disappeared while he was taking the remedy.

Dr. William A. Hardaway, of St. Louis, reported a curious case of pigmented neoplasm of the skin, and exhibited a full-sized painting of the patient, showing the appearance of the disease. It was not syphilitic, although the staining first appeared after large doses of iodide of potassium had been taken by the patient on his own responsibility.

Dr. A. R. Robinson presented a paper on "The Nerves of the Skin," illustrated by microscopic slides. Contrary to the usual belief, he showed that the nerves of the skin do not end in free ends, but form loops, and return into the superficial or deep plexus or into a neighboring papilla. The striated appearance of the tactile corpuscle he declared to be caused by a nervous plexus.

The question of the Contagion of Leprosy was reviewed by Dr. James C. White, who insisted that it was decidedly inoculable, and that sufficient danger of communication existed to warrant the attention of the National Board of Health to possible dangers to the people of this country from this source.

Dr. I. E. Atkinson, of Baltimore, described a form of specific eruption which was called *syphiloderma papulosum circinatum.*

This rare and peculiar cutaneous lesion, he said, belongs to the early manifestations of syphilis. The spots affected are not formed by an aggregation of papules, as sometimes occurs in late syphilis, but are due to a single papular development which slowly enlarges at its border until it covers an area equal to a silver dollar, or larger, though rarely exceeding this size. The eruption may be sparse, and is then generally seen on the face and the neck, or it may be general, involving the entire body. Its course is slow. The lesions closely resemble ringworm, from which they are distinguished readily by their microscopic appearances; they have some features in common with erythema multiforme and with psoriasis, but attention to history and the clinical characters will readily differentiate those distinct disorders.

A valuable tabulated report, based upon 58,617 cases of skin disease observed by members of the Association, was presented by Dr. White, Chairman of the Committee on Statistics.

A case of pellagra was reported by Dr. Sherwood, of the Long Island College Hospital. The Association remained in session three days. Several new members were added at this meeting, and the following officers were elected: Dr. R. W. Taylor, of New York, President; Dr. I. E. Atkinson, Baltimore and A. R. Robinson, of New York, Vice-Presidents; Dr. A. Van Harlingen of Philadelphia, Secretary; Dr. George H. Rohé, of Baltimore, Treasurer. The next place of meeting, Lake George; the time, the Wednesday nearest September 1, and the two following days.

ARTICLE LV.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, Sept. 7, 1882.

Vice-President, J. SOLIS COHEN, in the chair.

Case of Carcinoma Mammæ, presented by Dr. C. B. Nancrede, for Dr. Chas. Wirgman.

Mrs. Josephine M., æt. 48 years, married at 23, the mother of three children, the last born sixteen years ago. Had nursed all her children, but the last died from marasmus, owing to the small

amount of milk the mother had, although lactation was free after the first two confinements. She never had had any abscess of breast, traumatism or eczema of the nipples, although she had experienced pain and uneasiness in the right breast when nursing. There was no trace of carcinoma in family history. A sister had had an enchondroma of one of the metacarpal bones. When young the patient had suffered from dyspepsia, and on one occasion had had an attack of hæmoptysis. Of late years Mrs M. has grown very stout, although never very robust or strong About the middle of June, '82, she first noticed a lump in her breast, at its upper inner quadrant, about the size of a hen's egg. A few nights previously she had been awakened by a severe lancinating pain in the right breast, but experiencing no further inconvenience, she paid no attention to it. The mass did not seem to grow till handled; an exploring needle had been inserted, when the growth became softer, much larger, painful, and the skin and superjacent veins rapidly showed marked changes. I saw her Aug. 5, '82, with Drs. Wirgman and Hearn, when the only additional points to be noted were that the growth was freely movable with the breast upon the chest walls, and that a mass the size of a pigeon's egg could be felt in the axilla under the outer margin of the pectoralis major muscle.

Dr. Wirgman removed the whole breast by two semicircular incisions, opened up the axilla and removed all the glands up to the clavicle. This operation again emphasizes what Dr. S. W. Gross has specially insisted upon, viz.: that although the axillary glands may appear before operation uninvolved, that when the axilla is opened, numbers are often found enlarged. This accords with my own repeated experience. Although slow in healing, the case has done well since operation.

This case presents special points of interest which I shall now dilate upon. In the first place its history and appearance were eminently suggestive of a rapidly forming sarcoma, which was either cystic, or what at once suggested itself to me before etherization, one into whose substance hemorrhage had occurred. Upon careful examination under ether, the discovery of the enlarged gland at once suggested the strong improbability of sarcoma, which view I abandoned. After the removal, the microscopic appearance once more threw doubt on the diagnosis, as there was, for at least one half if not more at the circumference of the growth, a distinct *appearance of a capsule*, and as I

had surmised, the tumor had been broken down by a hemorrhage into its substance. Subjected to microscopic examination, the specimen was again puzzling, since sections of the first piece embedded, showed in every portion of their extent—with a very few slight exceptions—small spindle-cells of a connective tissue type. Dissatisfied, I embedded a second piece, sections of which revealed a typical carcinoma of the soft variety. This again illustrates what I have many times insisted upon in this society, viz.: that either very large sections of growth should be made, as Dr. Seiler advocates, or sections from several and varied portions of the morbid mass should always be carefully examined. Dr. Tyson said that the presence of a capsule seemed to be clearly demonstrated.

Recurring Carcinoma of Mamma and Axillary Glands. Presented By Dr. C. B. Nancrede.

The patient, Mrs. F., æt. 37 years, from whom the specimens were removed, before the discovery of the primary tumor, about eighteen months back was in perfect health, although from pecuniary losses she had undergone much mental anxiety since the Chicago fire. Hearing a vivid account from a friend, of another case of carcinoma mamma, her mind became deeply impressed, and shortly after she discovered a growth in the upper inner quadrant of the left breast, which continued to grow until it had attained, at the time of the first operation, to the bulk of a small orange, viz.: one year after her first discovering it. She lost much flesh from the time of the discovery of the growth; she had never suffered from any form of traumatism, had had no eczema of the nipple, and although she had borne one child, a number of years back and had suckled it, had never had sore nipples. There was nothing which could be fairly construed as an hereditary history of carcinoma. The primary operation had consisted in a removal of part of the breast. In less than two months after this a small nodule appeared in the cicatrix, while the axillary glands began to enlarge rapidly. On July 8th, 1882, I saw her, in consultation with Drs. R. R. Taylor and Harlow, when I found there was a small nodule in the middle of the original cicatrix, while the axilla was occupied by the mass of indurated glands, which I here present. The growth partially embraced the axillary artery, since when the former was compressed the radial pulse was decidedly affected. Not

being allowed to remove the whole breast, I freely excised the small recurrent growth, and after a tedious dissection removed the axillary tumor, laying bare the artery and vein for a space of over an inch, clearing everything out to the clavicle, and distintly recognizing the coracoid process of the scapula. Although not the place for a clinical discussion, I cannot refrain from emphasizing the importance of the thoroughness with which this axillary dissection should be performed. Not a single gland should be left, enlarged or not. Properly conducted, there is hardly any hemorrhage, a vessel rarely requiring ligature. This case was treated on Listerian principles, but with a spray of acetate of alumina, and the wound was dressed with the same. There was no inflammation, heat, pain nor subsequent induration, and if I remember rightly the case required but five dressings until the wound became superficial, and fever would have been necessary had perfect coaptation been secured. One or two points where stitches made marked tension, showed a surrounding skin blush, which disappeared on the removal of the stitch; immediately contiguous to this the wound edge looked as if made but a few minutes before, thus showing that the irritation of *tension* was the trouble which, as before said, very rapidly disappeared when the deeply imbedded stitch was cut. The temperature rose to 100.°2 at the end of the first twenty-four hours, after which it remained under 100°. The pain, after the removal of the pressure of the button stitches, amounted practically to nothing according to the patient's own statements, and it will be remembered that she had the experience of a former operation for comparison. I believe that this is the first case where acetate of alumina has been used in this city in a Listerian operation, and its success disposes of the absurd statement that carbolic acid *is* Listerism.

Carcinoma of the Stomach. Presented by Dr. J. H. Musser.

The clinical aspects of this case were so definite, that when the man applied to the medical dispensary of the Hospital of the University of Pennsylvania, for treatment early in April of this year, it was without difficulty that malignant disease was diagnosed.

He was a farmer of good habits, 53 years old, and previously in good health. For the last six months he had suffered from "weakness of the stomach" and general debility, which prevented him from working. He had lost much flesh, and had

constantly a severe sickening pain in the epigastrium, extending to the lumbar region, which became much worse within an hour after eating. Appetite poor, tongue clear and pale, bowels constipated, with troublesome flatulence. A tender, non-pulsative, movable tumor extended across the epigastrium from the margins of ribs on one side to a similar site on the other, one inch and a half above the umbilicus. He presented an ankinic, cachectic appearance.

Dr. H. Plank, of Morgantown, took charge of the case, and wrote me April 21st, 1882, that he was much benefited by the treatment instituted, but was confined to bed by sheer exhaustion. June 5th, the Doctor reported increased weakness and emaciation, and that the pain had extended along the left side to the same shoulder. He took but little nourishment, and he commenced vomiting June 10th, indigested food, mucus and grumous purulent matter. He died June 20th, of exhaustion, after a nine months' illness.

Dr. Plank kindly sent me the specimen I here present. One-fourth of the pyloric end of the stomach is involved in the growth, which extended along the greater curvature for four inches, along the lesser two inches and completely encircling the organ. The stomach walls are in front of the disease where dilated the muscular coat being hypertrophied, and the mucous membrane congested. The mass encroached upon the calibre of the viscus so as almost to occlude it. The tumor consisted of three nodules, one of which was ulcerated on its mucous surface, and presented the appearance of a schirrhus. The glands in the lesser omentun were diseased.

Spindle-Celled Sarcoma of Thigh. Presented by Dr. J. Henry C. Simes.

The patient from whom this specimen was removed, presented himself for admission to the episcopal Hospital on Aug. 30, 1882. He is 60 years old, an Irishman, and gave the following history: Two years ago he first noticed at lower and outer part of the thigh, a small swelling which grew rapidly to the size of a hen's egg, when it was removed. Shortly after the wound had healed, a second tumor was noticed in the cicatrix, having the same character as the previously removed growth. This was also removed by operation, and again, in a still shorter interval, a third, similar growth was developed in the same locality, which

was also removed by the knife. When admitted to my wards, there was found upon examination, at the lower and outer part of the thigh, a linear cicatrix about two inches long, beneath and adherent to which as well as to the surrounding integument, was seen a tumor as large as a walnut, movable upon the deeper tissues, painless, dense, and irregularly nodular. There was no glandular enlargement observable. No other tumors were present. The tumor was readily removed, being adherent only to the overlying skin, which was included in the incision. Microscopic examinations showed that the neoplasm consisted entirely of large spindle-shaped cells, which contained large oval nuclei.

ARTICLE LVI.

TRI-STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE EIGHTH ANNUAL MEETING OF THE TRI-STATE MEDICAL SOCIETY OF INDIANA, ILLINOIS AND KENTUCKY HELD AT DOWLING HALL, TERRE HAUTE, IND. SEPT. 26, 27 and 28, 1882.

FIRST DAY.—Tuesday, Sept. 26.—MORNING SESSION.—The president, Dr. J. M. Holloway opened the meeting at eleven o'clock and called for reports of committees. Dr. J. E. Link of the committee of arrangements made a report which was adopted. The report of the committee on programme was also adopted. Dr. J. W. Burton, the secretary, made a report in which he also offered to donate to the society his medical library containing some 275 volumes, some being rare works.

Dr. F. W. Beard, the treasurer also submitted his report.

AFTERNOON SESSION.

Dr. G. Wheeler Jones, of Danville, Ill., read a paper on The Origin of Heat in Fever, which was discussed at some length. He was followed by Dr. C. P. Hunter of Springertown, Ill., who treated of the subject of Iodine in Fever.

Dr. D. S. Booth, of Sparta, Ill., read an interesting paper entitled Is the Child Illegitimate? The different papers were then discussed during the remainder of the afternoon.

EVENING SESSION.

Vice-President Borck, of St. Louis, took the chair and the president, Dr. J. M. Holloway, of Louisville, delivered his annual address in which he referred briefly to tuberculosis, surgery, chemical appliances, syphilis and homœopathy.

The address was referred to the committee on printing and 500 copies ordered printed.

Dr. Thompson, of Indianapolis, delivered a lecture on the Treatment of the Eye and Ear, which was well received.

SECOND DAY.—Wednesday, Sept. 27.—MORNING SESSION.—Dr. Porter, chairman of the committee on programme, made his report, which was accepted. Dr. Morrel Mackenzie, of London, was then introduced and spoke on Laryngitis, which was discussed by several. He was then elected an honorary member of the society.

Dr. Willien, of Terre Haute, read a paper on Abdominal Surgery, Ovariotomy and Battey's Operation. After being discussed a paper on Peritonitis by Dr. Dixon of Henderson, Ky., followed. The next paper was by Dr. Haughton, the subject being Laparotomy, which was discussed at some length.

AFTERNOON SESSION.

After being called to order Dr. David Prince, of Jacksonville, Ill., resumed the discussion on Laparotomy, speaking at some length on intestinal stitches. Dr. C. H. Hughes, of St. Louis read a long paper on the Mental Status of Guiteau, which was well received.

Drs. Speed, Love, Charleton, Swafford and Keller were then appointed a committee on nominations after which Dr. Owen read a paper on Embryology which was discussed. Dr. Little read a paper on Hernia.

Dr. Link, of Terre Haute, performed an amputation in the presence of the society, demonstrating his mode of dressing and using alcohol as an antiseptic.

EVENING SESSION.

Dr. David Prince exhibited some surgical instruments, explaining their use. Dr. A. M. Owen read a paper on Hernia and was followed by Dr. Jno. Speed of Louisville, on the Mind as a Therapeutic Agent who was succeeded by Dr. Wm. Barrett, of St. Louis, who presented a paper on Lacerated Perineum.

THIRD DAY.—Thursday, Sept. 28.—MORNING SESSION.—Dr. R. E. Beach, of Vandalia, Ill., gave an address on the Radical Cure of Hernia which was discussed at some length.

The following report of the nominating committee was read and adopted:

President—Dr. Wm. Porter, of St. Louis.

First Vice-President.—Dr. Jas. Eastman, of Indianapolis.

Second " —Dr. Jas. Letcher, of Henderson, Ky.

Third " —Dr. Chambers, of Charleston, Ill.

Secretary.—Dr. G. W. Burton, Mitchell, Ind.

Treasurer.—Dr. F. W. Beard, of Vincennes, Ind.

The next place of meeting is Indianapolis on the third Tuesday in September, 1883. The chairman of the committee of arrangements in Dr. Harvey.

Dr. Speed made a verbal report on the potability of Terre Haute river and well water and was followed by Dr. Stokes, of Grayville, Ill., with a paper on the Use of the Swathing Band.

AFTERNOON SESSION.

The committee on necrology had no report to make, nor any resolution to offer on the death of Dr. John T. Hodgen and others.

Dr. Burton moved to discharge the committee in necrology and appoint a new one that would do its duty more properly. This was carried and Drs. Chambers, Young and Letcher were appointed.

Dr. Byrd, of Quincy, Ill., read a short paper on the Diseases of the Frontal Sinus. After some remarks on the paper, Dr. Harvey of Indianapolis, read a volunteer paper on Extra-Uterine Pregnancy. Dr. Mary Forsythe also read a paper on the Use of Colomel in Infants.

There being no further business the society adjourned.

Original Lecture.

Article LVII.

Synopsis of a Lecture on Ether and Chloroform. By J. P. Kingsley, M. D., Prof. of Physiology and Diseases of Chil- in Missouri Medical College.

The discovery of chloroform as an anæsthetic was made soon after the discovery of ether and received with great enthusiasm as a substitute for the latter. Its power, certainty, rapidity of action, convenience, absence of unpleasant effects to the patient, made it at once an almost universal substitute. The dangers connected with its use, however, soon manifested themselves and many returned to the use of ether. In Boston ether was never entirely abandoned as it was elsewhere and the few who did abandon it returned to its use almost immediately. In Great Britain chloroform obtained such a footing as to almost entirely supplant the use of ether for some ten or fifteen years. Some few refused to accept the change and continued the use of ether. The increase in the number of deaths from the administration of chloroform began to be observed and occasioned comment and controversy, the result of which, was the gradual abandonment of chloroform and the return to the use of ether as an anæsthetic. To-day ether has the preference over all the anæsthetics used. This preference has been growing for ten years. Many medical societies have placed themselves on record as being directly opposed to the use of chloroform, considering it an unsafe anæsthetic.

The number of deaths from chloroform recorded up to the present time is about 500. There are necessarily many unrecorded cases. The cause of death seems to be in a majority of instances, at least, enveloped in mystery. The many theories advanced seem not to be fully satisfactory. If the causes were fully understood we would be better enabled to understand how to prevent the calamity.

The modes of dying from anæsthetic vapors may be enumerated as follows:

1. Cardiac paralysis from poisoning of the cardiac ganglia. The first vapor seeming to surprise and paralyze the heart almost before any other effect is perceptible.

2. Paralysis of the heart after complete insensibility. In this mode of cardiac paralysis, the heart suddenly ceases to act in consequence of the paralysis of the motor ganglia. In this mode of death chloroform narcosis and shock from the accident or surgical operation figure as factors.

3. Fixation of the respiratory muscles. Richardson calls this epileptiform syncope. The result of the tetanic fixation of the respiratory muscles is the interference with the pulmonary circulation, accumulation of blood in the venous side and arrest of the action of the heart.

4. Paralysis of the respiratory muscles. Here there is complete relaxation of the respiratory muscles the action of the heart not being directly interfered with. The action of the heart continues for a short time after the respiration has ceased in both the latter methods of death.

There is great irregularity and uncertainty in the action of chloroform and as before intimated, we are aware of no precautions we can take to prevent a fatal termination in susceptible patients. While we are forced to the conclusion that chloroform is an unsafe anæsthetic we must also admit the exceptions. As an anæsthetic for children chloroform stands unrivaled. The same may be said of it regarding its use in obstetrical practice. Bartholow says: "It is generally conceded that no well authenticated case of death from the use of chloroform in labor has occurred, when the administration was in the hands of a properly qualified medical man." In comparing the two anæsthetic agents we find chloroform—the inhalation of chloroform—more pleasant and less irritating than ether. The stage of excitement is longest from ether. Ether may be administered with much more freedom and much less danger than chloroform.

The conclusion may therefore be drawn that ether should be used in preference to chloroform except for children and in cases of labor. Bartholow says that in the present state of opinion, the use of chloroform, when ether is available, for the production of anæsthesia, can hardly be justified.

Correspondence.

Article LVIII.

Editors Journal:—I always read with great interest the discussions of the St. Louis Medical Society and especially the different opinions about pneumonia, published in your last August number. But if it would not be considered presumptious in a country doctor, to interfere in a discussion among the learned gentlemen, gathered in the Metropolis of the West, I would take the liberty to suggest the following points:

In respect to the mortuary statistics, given by Dr. Montgomery, I cannot find the evidence, that pneumonia, treated by venesection and tartar emetic in former years showed a *lesser* death rate than in our days.

When in two years 1838 and 1839 died at London 7,431 persons from pneumonia and twenty-four town districts including the Metropolis 15,062; at Manchester in 1839, 501; at Liverpool in 1839, 657; at Birmingham in 1839, 395; (See Copland's Dictionary) these statistics show to me, that pneumonia has always been a dangerous disease then, as well as in our days. As to the tartar-emetic treatment I believe Prof. Bartholow is right, when he denounces it as improper.

In respect to tincture of veratrum viride, I agree with Dr. Anderson in his remarks before the St. Louis Medical Society about veratrum viride.

"In violent inflammation, as in pneumonia, meningitis, peritonitis and others, it does not seem to me the appropriate remedy." As for the application of hot poultice I never had any good results with it in private practice, on account of neglecting the changing of it, when it got cold; but on the other hand —the wrapping of the chest in a layer of cotton-batting, equally and tightly applied, I found very good and it needs only to be changed after a profuse perspiration.

For counter-irritation I prefer, according to Prof. Flint, Jr., tinct. iodine instead of empl. canth. As for the expectant treatment I saw at Kiel (Germany) a physician treating himself in a severe attack of right lobular pneumonia by applying an ice-bladder to

the chest and taking a tablespoonful of good Port wine every two or three hours—and getting perfectly well in about fourteen days.

Wherein all physicians agree is that in pneumonia at first we have hyperæmia, congestion and engorgement, as Prof. Gross very well remarked in his essay "Blood-letting as one of the lost arts."

"It is well known, that in every inflamed area, there is marked hyperæmic distension of the bloodvessels, which we often find crowded to their utmost capacity with lencocytes which emigrate through the vascular walls and in conjunction with the effused blood liquor constitute the most important elements in inflammatory deposits. Hence the object of the treatment should *to restore the capillaries to their normal calibre through the artificial induction of contraction of their walls*, which can be brought about as is daily witnessed in many of the external inflammations by cold applications, which, as is well ascertained, produce reflex contraction of the vessels.

In inflammation of the more deeply seated organs and tissues however, this object can only be brought about by spoliative bleeding according to Prof. Gross, but according to Prof. G. W. Hall by giving fluid extract of ergot in drachm doses every two hours, which treatment was followed always by the best results, if exhibited in the first stage of pneumonia. Twenty years ago Prof. Hall, then at Keokuk, had published his experience with ergot in pneumonia and I think to him belongs the honor of having used it for the first time.

Later on in 1877, F. B. Searce, M. D., of Chillicothe, Ohio published an article—"A New (?) Abortive Treatment of Pneumonia by Ergot." Then 1878, Dr. F. B. Yeaman of Crystal City, Mo., followed in No. 4 of the *Clinical Record* with a short article—"Ergot in Pneumonia."

I have used it since 1875 in every case of sthenic and asthenic pneumonia in children and adults and would not do without it. In the second stage and alternating with ergot also in the first stage I use aconite in two or three drops every two or three hours. Later I give iodide of potassium or ammonium iodide with senega infusion as a resolvent. In cases complicated with malaria I give also quinine and carbonate of ammonia.

In dyspnœa I use inhalations of chloroform according to Prof. Skoda. In suffocationibus inter pneumoniam chloroformium remedium praestans.

E. A. VOGT, M. D.,
August, 1882. Friedheim, Cape Girardeau Co., Mo.

Periscope.

Article LIX.

PATHOLOGY.

Fœtus in Fœtu.—Dr. Lubimoff Kasan, Russia (*Vratch Vedomisti*, No. 1, 1882), has recently reported an interesting case of this kind. He found on a little girl born at term and living, a perineal tumor of which the right half was hard and the left half soft. On autopsy there were found two cysts in the left half. The right half contained different portions of a fœtus, a well-developed foot with six toes, a rudimentary arm, and a stomach. Between the two tumors were found small dermoid cysts containing epithelial cells, striated muscular fibre, bits of cartilage, and bones containing marrow in the interior.—[*Gaillard's Journal.*

Osteoma of the Penis.—Dr. Wm. H. Porter presented to the New York Pathological Society, a specimen of bone which he had removed from the penis, with the following history:

J. T——, aged sixty-three, about two and one-half years ago accidentally noticed a small lump on the dorsal surface of the organ and to the right. At first the only trouble which it gave was the mental annoyance. Later on it enlarged slowly, causing pain and a slight deflection of the penis when erect. The neoplasm enlarged very slowly, and caused a comparatively small amount of pain, but great mental uneasiness. The growth was irregular in shape, broadest at the junction of the middle and posterior thirds, pointed anteriorly, where it was united with the glans. It was freely moveable under the skin.

Operation, July 15th.—A small opening was made directly over the tumor, and it was slipped out through a buttonhole opening. It was quite firmly attached to the fibrous tunic of the corpora cavernosa. The patient had done well, and was practically cured.

The mass, when freed from the adherent soft tissue, was found

to be quite irregular in outline. It measured six centimetres in length and three centimetres at the widest point. It was slightly arched to fit the penis.

Microscopic examination showed that it was a true bony mass, as it contained distinct lacunæ and canaliculi.

The case was certainly unique, if not the first of its kind recorded.—[*Medical Record.*

PHYSIOLOGY.

A SINGULAR PHENOMENON.—Dr. L. C. Woodman, of Paw Paw, Mich., contributes the following interesting though incredible observation: I have a singular phenomenon in the shape of a young man living here, that I have studied with much interest and I am satisfied that his peculiar power demonstrates that electricity is the nerve force beyond dispute. His name is Wm. Underwood, aged 27 years and his gift is that of generating fire through the medium of his breath, assisted by manipulations with his hands. He will take anybody's handkerchief and hold it to his mouth, rub it vigorously with his hands while breathing on it and immediately it bursts into flames and burns until consumed. He will strip and rinse out his mouth thoroughly, wash his hands and submit to the most rigid examination to preclude the possibility of any humbug, and then by his breath blown upon any paper or cloth, envelop it in flame. He will, when out gunning and without matches, desirous of a fire, lie down after collecting dry leaves, and by breathing on them start the fire and then coolly take off his wet stockings and dry them. It is impossible to persuade him to do it more than twice in a day and the effort is attendant with the most extreme exhaustion. He will sink into a chair after doing it, and on one occasion after he had a newspaper on fire as narrated, I placed my hand on his head and discovered his scalp to be violently twitching as if under intense excitement. He will do it anytime, no matter where he is, under any circumstances, and I have repeatedly known of his setting back from the dinner table, taking a swallow of water and by blowing on his napkin, at once set it on fire. He is ignorant, and says that he first discovered his strange power by inhaling and exhaling on a perfumed handkerchief that suddenly burned while in his hands. It is certainly no humbug, but what is it? Does physiology give a like instance, and if so where?—[*Michigan Medical News.*

PRACTICE OF MEDICINE.

THE EPIDEMIC WAVE.—Dr. Arthur Ransome read before the Epidemiological Society of London Wednesday, June 7th, a paper on The Form of the Epidemic Wave, and on some of its Probable Causes:

1. The course of an epidemic through a country may be compared to a wave rising and falling—again to rise after an interval which, in the same disease, is remarkably singular. This observance of "periodic times" is probably due to the fact that a certain density of the population at the susceptible ages is necessary before a disease can spread with the vigor of an epidemic. (See "Epidemic Cycles," Proceedings Lit. and Phil. Society, January 27, 1881.)

2. In some diseases, such as scarlet fever and whooping-cough, and perhaps smallpox, there is evident in the hundred years or more of mortality returns from Sweden, of more wide-spread variations in course of these complaints—a variation of fifteen to twenty-five years in the case of scarlet fever; of fifty years in whooping-cough and smallpox. No explanation could be given of these latter variations. In scarlet fever it was supposed to be due to the susceptibility of adults to this disease. The form of the epidemic was best to be studied by means of a regular registration of disease, such as was in use in St. Marylebone and Manchester, in Preston and Birmingham—not from mortality statistics. From these data it was observed:

3. That the curve of an epidemic is usually very irregular, and its ocillations were shown to be due (*a*) to the lighting up of fresh centers of infection (*b*), to variations in sanitary conditions, and (*c*) to atmospheric influences, affecting equally two distant places, the coincidence of curves in Manchester and London being very striking.

4. A pre-epidemic period of several months, or even two years, was found to exist in smallpox and scarlet fever, and a shorter period in whooping-cough and measles. This preliminary period was probably due to the need for the establisment of many distinct centers of infection.

5. A recrudescence of the epidemic was often to be found, and this was probably due to a fresh intensification of a previously attenuated virus; perhaps, in accordance with M. Pasteur's observations in consequence of the deaths of very young or enfeebled persons.

6. The general form of the epidemic wave might partly be accounted for by the theory of infection spreading like a spark in tinder, but it was more probably due to a steady attenuation of the virus in passing through a succession of individuals.

7. The preference of certain epidemics for different seasons of the year was usually to be explained by the prevalence of diseases, at those seasons, of organs chiefly affected also by epidemic disease. A local predisposition to the disease was thus established, and we might thus explain the "epidemic constitution" of certain years, and the "pestilential type" of disease common during epidemics.—[*Medical Times and Gazette.*

TREATMENT OF PHTHISIS.—W. H. Hughes, M. D., in the *Medical Bulletin*, in an article entitled "Treatment of Phthisis," writes: While there has been advancement in the knowledge of the cause and symptoms of phthisis, the treatment has not progressed sufficiently to enable us to control its terrible effects to any degree. Having a large number of applicants suffering from this malady, he has adopted, after devoting considerable time and study to the various modes of treatment, a method which he has employed in practice and from which he has obtained valuable results. The agent he employs is petroleum mass. It acts as an anodyne alterative, and reduces the irritation and inflammation of the bronchi and trachea, relieves the cough, and by its healing and soothing qualities prevents further destruction of the organ. When an abscess has formed, a cicatrix may be secured which enables the lung to resist the deposits from becoming embedded in the tissues and prevents the formation of additional abscesses. Out of nearly one hundred cases Dr. Hughes has treated during the last thirteen months, there were but three whom this remedy would not relieve. Seven died, and sufferings were greatly relieved by the use of this remedy. The formula used is petroleum mass, one ounce; powdered cubebs and Dover's powder, each half an ounce; sulphate of cinchonidia, two drachms, make into pill mass. Divide into four grain pills; one every three or four hours. The following results are to be expected from its use: Diminished expectoration, alleviation of the cough, cessation of night sweats, disappearance of tightness and soreness of the chest, gradual restoration of appetite, digestion and strength. As no living thing can exist in petroleum oil, may not the favorable results of this

remedy be due to its action on the microscopic parasite?—[*Chicago Med. Rev.*

THE TREATMENT OF ACUTE STHENIC PLEURISY.—Dr. Guyon has recently tried the various plans of treating pleurisy on an extended scale, and his results are embodied in the following propositions:

Acute sthenic pleurisy must be treated energetically at the onset of the disease, as the expectant plan is dangerous.

The Arabic method, which consists in withholding all fluids, and using alterants to promote absorption, gives bad results.

Diuretics, purgatives, and sudorifics are uncertain measures, and do not in themselves constitute a method of treatment.

Applied at the beginning of the malady, wet cups suppress the pain, diminish the dyspnœa, and apparently arrest the progress of the exudation, and are to be preferred to blisters, which are, indeed contraindicated at this period of the disease.

When a marked degree of gastro-intestinal catarrh exists, emetics and cathartics are usefully added to other antiphlogistic measures.

The duration of an acute pleurisy treated by mercurials is relatively long, and the patient is exposed to unpleasant accidents.

During the febrile state thoracentesis should not be practised unless the effusion is so great as to endanger life.

If the medical treatment has been without result, it is well to puncture after the fever has ceased, and not depend on absorption, whether it be expected to take place spontaneously or under the influence of revulsives.

In view of the above, may we not inquire if it has been wise to abandon venesection altogether in cases of acute sthenic pleurisy? Have not effusions, serous and purulent, been more frequent and extensive since venesection has not been employed?—[*Med. News.*

THE PROPHYLACTIC VALUE OF SALICYLIC ACID IN YELLOW FEVER.—Dr. Walls White instructed the captain of a Brazilian-bound vessel to give salicylic acid to his men when he reached his destination. On arriving at Rio Janeiro, it was found that the yellow fever was prevailing. Among the one hundred and fifty ships in the harbor, there was not one that had not had

from two to four deaths on board. The captain in question gave his men from five to ten grains of salicylic acid daily, for fifteen days, during which time all the crew remained well. The medicine was then stopped for a few days, but as some of the men began to show prodromal symptoms they were put upon it again: The vessel soon after left the port, having had no case of yellow fever.—[*El Siglo Med.*

A NEW REMEDY FOR ASTHMA.—From more than one quarter it is reported that Australia possesses a valuable remedy for asthma, which might with advantage be more generally known. A species of *Euphorbia* indigenous to Queensland, and designated *E. pilulifera*, is used locally with the best results in asthmatic and bronchial affections. An ounce of the leaves of the plant placed in two quarts of water, and allowed to simmer until the quantity is reduced to one-half, affords a medicine which, taken a wineglassful at a time twice or thrice a day, is credited with the power of relieving the most obstinate case of asthma, as well as coughs and ordinary chest affections. The leaves may easily be gathered and dried, and will keep for a considerable length of time. Other species of the *Euphorbia* have already acquired some reputation for their medicinal virtues; thus the leaves of *E. nereifolia* are prescribed as a purgative by the native practitioners in India, while the root of the *E. ipecacuanha* is said to be equal in all respects to the true ipecacuanha.—[*Medical Times and Gazette.*

THE TREATMENT OF CONSUMPTION BY ELECTRICITY.—Although not a new expedient, nor a novel application of an old one, Dr. Alavoine's method and its results deserve attention as additional proof of the efficacy of treatment which has, hitherto, attracted but little attention. He employs an induction current, and by means of it excites in turn the nerves engaged in the respiratory acts. He, also, stimulates the pneumogastric nerve, and thus lessens the action of the heart, and consequently diminishes pulmonary congestion. He applies a small olive-shaped metal electrode in the fossa behind the angle of the lower jaw, and a corresponding one over the pneumogastric near the sterno-clavicular articulation. Commencing with feeble currents, he continues the applications, slightly increasing their

strength, for a quarter to half an hour. The immediate effect is a dilatation of the lungs, an increase in the depth and amplitude of the respiratory movements, and a diminution in their number. The expectoration is at first notably increased, after a while it lessens, the respirations become more easy and deep, the condition of the blood improves, sleep is free from dyspnœa, nocturnal sweats disappear, the appetitite returns, and the process of repair begins.—[*Med. News.*

THE TREATMENT OF INTUSSUSCEPTION.—In the September number of the *New York Medical Journal and Obstetrical Review* Dr. W. R. Gillette, Physician to Bellevue Hospital, relates a case of intussusception in a child nine months old, relieved by injections of water, the administration chloroform by inhalation, and manipulation of the tumor felt through the abdominal wall. This, he states, is the third case of intussusception in infants which he has seen, and which he has been able to reduce by these means. He thinks that these cases, from the philosophy of their condition, and the necessary measures for relief, are best managed in the way indicated. In two other instances, in which he saw and advised this treatment, reduction was utterly impossible under the other methods tried. The children in each of these cases were held while struggling, and the injections forced into them against all voluntary and involuntary efforts which they could make. He deems the administration of chloroform almost absolutely necessary in these cases. The reason is not difficult to find, inasmuch as, while it gives us such perfect control of the patient, it also eliminates the element of muscular spasm. Moreover, massage is a powerful adjuvant to the hydrostatic pressure of water in these cases. In the first two cases the obstruction was not overcome until massage also was employed.

SURGERY.

TREATMENT OF FUNGOUS ARTHRITIS.—The French pathologists apply the designation fungous arthritis to that form of chronic synovitis or arthritis in which the synovial membrane becomes white and sodden and the articular cartilages more or less eroded and disorganized. At a recent meeting of the Société de Chirurgie, M. Marc Sée presented a young girl who had tuberculous or fungous arthritis of both knee joints. After considerable

treatment M. Sée decided to follow the practice of certain German surgeons who recommend injections containing iodoform for the destruction of tuberculous products in inflamed joints. He injected fifteen minims of a 20 per cent. solution of iodoform in ether into the left knee, which was most affected. The next day the knee was swollen, red and painful, but after a few days of perfect repose of the joint these symptoms disappeared, and after fifteen days there was notable amelioration in the condition of the joint. A second injection was made into the joint, with gratifying results, for the lateral immobility has at present disappeared, and the patient can use the limb in walking. In the discussion which followed M. Desprès remarked that he had made iodinized injection into joints in three cases; in one, of dry arthritis, the patient succumbing two years later to a cardiac affection, when the joint was found filled with pus, whether of recent formation or not he was unable to determine. In the two other cases excellent results were obtained.

M. Verneuil said that at a therapeutic point of view, distinction should be made between fungous masses of recent origin and those of old date. In the second place, at an anatomical point, these fungous masses may, according to M. Verneuil, be divided into three different varieties: 1st. Those which succeed to chronic rheumatic arthritis. 2d. Those which contain tuberculous follicles, constituting tuberculous synovitis. 3d. Those which are symptomatic of an adjacent bone disease. In practice this distinction of varieties is of capital importance, for on it must be founded the course of treatment to follow.

Where the fungous masses are of tuberculous origin, cure cannot be obtained by ordinary therapeutic means; resection often proves insufficient, for there is more or less rapid relapse; in such cases it is very often found necessary to have recourse to radical measures, amputation often proving the only resource.

Where, however, the fungous masses are of rheumatic origin, immobility, with iodinized injections, succeeds very well. The treatment is long, and anchylosis generally the result; however, in some cases, the movements are regained.

Finally, when disease of adjacent bone is the cause, it will generally suffice to resect the diseased bone, and fungous masses will disappear.

It has been recommended to excise and remove the entire synovial membrane, but this operation is very difficult, and what

is more, unnecessary, for removal of the diseased bone generally induces disappearance of the fungous masses. So, then according to M. Verneuil, the rules for practice in such cases would be as follows: 1st. No active intervention in fungous arthritis of rheumatic origin. 2d. Resection and, unfortunately too often, amputation, in cases of tuberculous nature.—[*Medical and Surgical Reporter.*

THE TREATMENT OF FRESH WOUNDS.—Dr John Duncan draws the following deductions from his observations:

1. That when we succeed in preventing sepsis at the operation, we can by this method rely on singularly simple and favorable progress, with total absence of fever, with freedom from pain, and with great rapidity of healing. It is proper to be exceedingly careful in the arrestment of hemorrhage; but even did a little reactionary oozing occur, it is only necessary to renew the dressing once, or, as he did in some of these cases, to put on an additional layer of wool.

2. That should sepsis lead to inflammatory action, it is necessarily temporarily to abandon the dressing.

3. That even in septic cases it is often advantageous to continue it throughout if there be no inflammation, or recur to it when inflammation has subsided, because it is a good excipient for discharge, because it tends to diminish the amount of pus, and because it aids in keeping the part at rest.

4. That in fresh wounds so situated that they can be firmly and equably compressed, the induction of materials to secure drainage is usually unnecessary, and that if the drainage-tubes be introduced, they should be removed in twenty-four hours.

5. That sepsis is less apt to occur by this method, as it avoids the risks which attend changes of dressing and movements of drainage-tubes, which, in my experience, are more fruitful sources of failure than even the original operation.—[*Edinburgh Medical Journal.*—[*Med. News.*

THE EASY PREPARATION OF CATGUT LIGATURES.—Whether one pins one's faith to the antiseptic system or not, the use of catgut ligatures is so important and so general that we call attention anew to the simple and easy method of preparation which Mr. Lister introduced and published last year. Any doc-

tor can prepare them for himself within a couple of days, and keep them constantly on hand.

Add one part of chromic acid and 200 parts of carbolic acid to 4000 parts of water. To this mixture (as it undergoes change in a short time) add immediately 200 parts of catgut of suitable thickness. After soaking for forty-eight hours, dry the catgut and place it in a mixture of carbolic acid and sweet oil, a drachm and a half to the ounce (1 to 5), in which it may be kept indefinitely.—[*Med. News.*

THE EFFECTS OF DEPRESSION OF THE CRANIUM.—In an elaborate memoir on the subsequent effects of depression of the cranium in childhood, Dr. Guermonprey draws the following conclusions:

1. Depression of the cranium, whether complicated or not, can, in a general manner, be the cause of various psychical disturbances.

2. These disturbances are more important when the depression is located in the frontal region, particularly on the left side.

3. The depression may act as an interference to the normal delelopment of the psychical function and growth of the brain. —[*Arch. Gen. de Med.*—[*Lancet and Clinic.*

A CASE OF RAILWAY INJURY WILH LOSS BRAIN SUBSTANCE.—A. McPhedran writes to the *Canadian Jonrnal of Medical Science*: The following case is sufficiently interesting to be placed on record: W——, a girl aged nine, was struck by a train as it was entering Oshawa station, June 17, 1876. Through the kindness of Dr. Rae, to whom I am indebted for these notes, I saw the child with him shortly afterwards. She was comatose. The scalp was cut in several places. Blood flowed freely from the mouth, nose and ears; and there was subconjunctival extravasation. Two pieces of brain substance, each as large as a bean, escaped from the left ear with the blood. The left humerus and clavicle were broken, and the arms and legs much cut and bruised. Coma continued for several days. The bleeding from the ears, which persisted for some time, was followed by a serous flow. Consciousness gradually returned, and she slowly improved till complete recovery took place. Her hearing was deficient before the accident, caused by an attack of scarlet fever; the deafness is considerably more marked now, though not complete.

OBSTETRICS AND GYNÆCOLOGY.

AN UNUSUAL RELATION BETWEEN THE PLACENTA AND THE MEMBRANES.—In the September number of the *New York Medical Journal and Obstetrical Review* Dr. Henry J. Garrigues, of New York, describes a very remarkable relation between the membranes and the placenta. The placenta measured twenty centimetres in diameter, the cord sixty-four centimetres in length, and both were of normal thickness. The cord was inserted centrally. The membranes which had contained the child did not adhere to the edge of the placenta, but started from the point of insertion of the cord on this organ. Measured in a flaccid condition, hanging down around the cord, this bag was forty-one centimetres long. It was easily separated into two layers. The inner layer was covered with the epithelium characteristic of the amnion, a single layer of flat polygonal cells, which were in a state of fatty degeneration, as proved by numerous oil globules found in their interior. The outer layer consisted only of connective tissue, which, in some places, contained a few round or oval cells, and many fat drops. In other places some loose shreds were found on the outer surface, which showed a greater number of similar cells. At the placental end of the cord the sac was seen to form a kind of triangular mesentery, embracing the first eleven centimetres of the cord, and attached to the sac to a similar extent. The two layers forming this fold were not united, so that the finger could be pushed in between them up to the cord; but at the lower end (i. e., nearer to the fœtus) they grew together, so that a pouch was formed between the "mesentery" and the cord, admitting half the length of the index. At the placental end of the cord there was found in the interior a small clear vesicle of the size of a pea (the umbilical vesicle). The placenta presented the common shining, smooth fœtal surface, and rough maternal surface. The edge looked ragged, as if something had been torn from it, and in one place even a small, square piece of membrane about two centimetres in either direction was found attached to it. This membrane had no epithelium, and was composed of an inner layer of connective tissue, and an outer layer containing many round and oval cells. From the fœtal surface two membranous layers could be dissected off. The most superficial was exceedingly thin, the deeper one comparatively thick, and bound by isolated fibers to

the placental tissue. The fœtal surface had no epithelium. The chief point of interest was that the sac in which the fœtus was placed, and which contained the amniotic fluid, was not attached to the circumference of the placenta, but to its center, all around the insertion of the cord. Microscopical examination showed that this sac was composed of the amnion and the chorion, but had only scant remnants of decidua attached to it here and there. On the other hand, the portion of the membranes found attached to the edge of the placenta was composed of decidua and chorion without amnion, and the fœtal surface of the placenta had no amniotic epithelium. Dr. Garrigues supposes, therefore, that the placenta all around was separated, after the birth of the child, from the decidua, which remained attached to the interior of the womb. Secondly, that the amnion and the chorion together formed a fold from the circumference to the center of the placenta, which fold on one side was open, and formed the meso-cord described. Such a folding was, perhaps, brought about by accumulation of fluid between the chorion and the decidua after the formation of the placenta. At first he supposed that the amnion alone partook of the folding; but then we should find, he adds, on the sac surrounding the fœtus, the line where the chorion had been torn, and there was no trace of anything of the kind. He thinks, therefore, we must conclude, that the chorion remained close to the amnion all the way, and was folded with it so as to cover the fœtal surface of the placenta. The outer one was very thin, and this he took to be the chorion; the inner was thick, and this he explains as being the two layers of amnion grown together by their epithelial surfaces.

AXIS-TRACTION.—Dr. J. C. Cameron, of Montreal, read a paper upon this subject, at the late meeting of the Canada Medical Association. He contended that the general principle of axis-traction was fully admitted, and that the only question to be decided was the form of instrument best calculated to carry it out. He believed that the forceps of Tarnier was that which best served this object. The best is that which does least injury to mother and child, is safest, and *ceteris paribus* is least fatiguing. The different forms—simple curve, double curve, and axis-traction—were contrasted. The Tarnier forceps has certain advantages, viz., (1st), it allows of axis-traction; (2nd), it indicates the the movements of the head and the proper direction for traction;

and (3rd), allows mobility of the head. The objections which had been raised were: 1st, Clumsiness and difficulty of application. 2nd, Injurious compression of the head. 3rd, Difficulty of disinfection. 4th, Danger of wounding the soft parts. Dr. Cameron, after discussing these points, said that from a use of the instruments, he thought that two things specially would strike one who employed it for the first time, viz., the great backward traction one had to make, and the wonderful ease with which the head advanced in that line. He advocated its more general employment for the high operations.

Dr. Holmes thought he would use every aid to delivery, especially considering the frequency with which lacerations of the cervix are now found to occur. He followed the leverage plan of Dr. Albert Smith. By watching the motion of the head we got the right direction for the traction. Dr. H. believed that ruptures often occur from encouraging a woman to bear down just at the time when she should not do so—*i. e.*, just as the cervix and the perineum are respectively being passed.

Dr. Temple would on no account use Tarnier's forceps exclusively. He criticised one of the diagrams showing the Caru's curve, for the head really enters in a straight line, and continues so till well back against the sacrum before any curved direction is communicated to it. He believed that the double curve of the forceps gives the necessary traction backwards in the direction of the axis of the inlet. He thought the Tarnier forceps may outdo the double forceps in occipito-posterior presentation, but not the simple forceps; the latter, in these difficult cases, is the safest and surest, and least liable to slip. He did not think that the pressing back of the perineum was so injurious as represented (in using the straight instrument), because the parts were so very relaxed and movable. He would not trust Tarnier's instrument except to a skilled hand.

Dr. Stewart mentioned that he had seen two autopsies in Vienna, both from rupture of the vagina, following delivery by means of Tarnier forceps. The obstetricians in charge (Braun's assistants) had never met with the accident before with other instruments.—[*Canada Med. and Surg. Jour.*

SELF ABORTIONS.—Dr. H. S. Humphreys writes as follows to the *Medical and Surgical Reporter:*

I desire to relate the occurrence of several self induced abortions that have come under my notice:

One case, I remember, was induced by large injections of water, alternating with hot and cold water, used every few hours. After the third day a two month's fœtus was expelled, followed by a profuse hemorrhage, which I was called to treat.

Another lady regularly aborted by introducing a common goose quill and leaving it within the uterus until expelled by uterine contractions. She had been advised to select the end of the third month for the operation, and she laughingly remarked "that she could flip their *eds hoff hevery* time." (She was English.)

I knew another lady who used for a similar purpose, a common knitting needle, half an inch of the point of which was bent at an obtuse angle.

But the most remarkable case I ever knew came before me last winter. A tall, angular girl, about twenty years old, came into my office, and without hesitating, remarked that "she was in a fix, and was determined to get out or die." Said she had got something in her womb. I asked her what it was. She doggedly replied, "a button hook." I placed her in my chair and found about half an inch of the handle protruding between the labia. She had the point turned beyond the internal os, and in attempting to withdraw it the point imbedded itself firmly in the uterine tissue. There was some hemmorrhage, and labor pains were pretty frequent. In her efforts to dislodge the hook she had dragged the uterus low in the pelvis. Seizing the handle with my left hand I introduced uterine forceps along the stem at the curve of the hook, and had little trouble in removing it. Labor progressed, and in a few hours was over with, the girl making a good recovery.

HIGH TEMPERATURE IN PUERPERAL FEVER.—Dr. Harrison Tetley notes the following case in the *Lancet*: Mrs. A., a strong and healthy lady, aged twenty-eight, was delivered on April 13, of her second child. She had a comparatively easy labor, of about three hours' duration; a knee presentation. Her condition seemed in every way satisfactory until the 15th, when at 6 o'clock P. M she had a severe rigor. On the same evening at 10: 30, I found her in a state of high fever, complaining of headache and pain in the right iliac region. The pulse was full, 134; tempera-

ture 105.4°. The tongue was coated with a white fur, and the bowels had acted freely during the forenoon, after a dose of castor oil. Lochia normal.—16th, 10:30 A. M.: Patient feels better; has passed a fair night; pain less. Lochia diminished but offensive to the smell. Pulse 125; temperature 104°. 9 P. M.: Patient expresses herself better; pain entirely ceased; also the lochia. Pulse 122; temperature 103.5°.—17th, 10:30 A. M.: Has had a good night; complains of nothing except her thirst. Pulse 118; temperature 103.1°. 9:30 P. M.: Much the same; slight attack of diarrhœa. Pulse 130; temperature 105.2°.—18th, 10 A. M.: Has had another fair night; bowels stayed. Pulse 128; temperature 105°. 10 P. M.: No change since morning visit. Pulse 130; temperature 105.1°.—18th, 9:30 A. M.: Patient in the same condition. Pulse 130; temperature 105°. 10 P. M.: No change. Pulse 135; temperature 105.4°.—20th, 9:30 A. M.: Has passed a restless night; bowels relaxed again; complains greatly of thirst. Pulse 138; temperature 102.1°. 8:40 P. M.: Patient is delirious for the first time; bowels still relaxed. Pulse 148; temperature 109.8°. Died at 1:30 A. M. on the 21st.

The pain in the iliac region ceased during the afternoon of the 16th, and there was not any swelling of the abdomen up to the time of her death. The remedies I used in this case consisted of fomentations in the early stage, with injections of Condy's fluid; also aconite, sulpho-carbonate of soda, quinine, and the wet sheet. I may add that this case had its origin in scarlet fever poison, as I found out unfortunately too late.

MATERIA MEDICA AND TOXICOLOGY.

MOSQUITO OIL.—A correspondent from Sheepshead Bay, a place celebrated for the size of its mosquitoes and the number of its amateur fishermen, recommends the following as a very good mixture for anointing the face and hands while fishing:

Oil of tar	1 ounce.
Olive oil	2 "
Oil of pennyroyal	½ "
Spirit of camphor	½ "
Glycerine	½ "
Carbolic acid	2 drachms.

Mix. Shake well before using.—[*Ex.*

TO GET RID OF MOSQUITOES.—It is stated by a writer in

Nature that quassia water is a protection against the attacks of these sirenic insects. He tried a weak solution on a child's face, which had become grievously tormented, and it worked to a charm, preventing the gray backed suckers from dining on the baby's rosy dimples. All that is necessary is to moisten the face with the solution of quassia. It should be weak for this purpose, for a strong solution of quassia is an active poison to flies, sugar being mixed with it to attract them; but it is powerful enough to kill the insects very quickly.

THE POISON OF MUSHROOMS.—Prof. Ponfick, of Breslau, has lately made experiments on the common mushroom, of which the following are the results. All common mushrooms are poisonous. but cooking deprives them, more or less, of their poisonous qualities. The repeated washing with cold water which they usually undergo to clean them, takes away a portion of the poison, and boiling does the rest; but the water in which they have been boiled is highly poisonous, and should always be carefully got rid of. Experiments made on dogs showed that if a dog ate one and a half per cent. the poison had a more violent but not fatal effect, but if it ate two per cent. it was inevitably fatal. The water in which mushrooms had been boiled was far more poisonous than even the raw mushrooms, while the mushrooms thus boiled could be taken without hurt to the amount of ten per cent. of the weight of the dog's body. Washing with cold water does not remove all the poison, so that mushrooms thus prepared are poisonous when taken in larger quantities. Dried mushrooms are still dangerous for from twelve to twenty days, and also the water in which they have been boiled. They require to be dried for at least a whole month, and are only really safe after four months' drying.—[*British Medical Journal.*

PARASITIC NATURE OF CEREBRO-SPINAL MENINGITIS AND THE INFECTIOUS NATURE OF THE ACCOMPANYING NEPHRITIS.—M. Ernest Gandier has recently published the history of a case of cerebro-spinal meningitis, in which he claims to have demonstrated for the first time the parasitic nature of the disease. The case was that of a woman, aged thirty, seen at the Hôpital Cochin, who was seized suddenly after a suspension of the menstrual flow, with violent headache and pain in the back, accompanied by chill, high fever (temperature 104°–105.4° F.), and

marked typhoid symptoms. Typhoid fever was at first suspected, but the rapid supervention of strabismus, dilatation of pupils, stiffness of neck, and fixed rotation of head to the right, with general hyperæsthesia, delirium, and coma, soon established the diagnosis of meningitis.

Chemical examination of the urine revealed the presence of albumen of two kinds, the *retractile albumen* of Prof. Bouchard (attributed to renal lesions), and the *non-retractile* (considered as an indication of some general infection of the system involving the kidneys). Microscopical examination of the urine and blood undertaken during life and with antiseptic precautions, showed the presence of moving micrococci in great numbers, of various sizes, generally isolated, but in some cases united in pairs.

The death of the patient occurred on the sixth day, from coma. The latter was accompanied by profuse sweatings and retention of urine. At the autopsy, the intestinal follicles were enlarged and prominent, spleen enlarged and softened, liver much enlarged and in a condition of fatty degeneration, lungs congested, heart flabby and "dead-leaf colored," blood black, fluid, and without clots. The kidneys presented the lesions of infectious nephritis as first described by M. Ch. Bouchard in typhoid fever and as observed by the author in diphtheria. Both the cortical and the medullary portions were congested, the former marked by whitish striæ. The microscope showed considerable swelling and granular degeneration of the renal epithelial cells with effusion of granular matter into the lumen of the tubules. The meshes of the cerebral and spinal pia mater showed the usual purulent effusion. This exudation contained numerous micrococci, like those discovered during life in the blood and urine.

M. Gandier ventures to draw from this case the conclusion that the presence of micrococci in the blood and urine tends to prove the parasitic nature of cerebro-spinal meningitis. He attempts to explain in this way both the contagious nature of the malady and its occurrence in epidemic form. At the same time, an explanation of the general typhoid symptoms accompanying the meningitic manifestations would be found. The meningitis and the nephritis are to be considered as secondary to a primary parasitic infection of the system.—[*Revue Médicale*—[*Med. Record.*

NERVOUS AND MENTAL DISEASES.

THE STUDY OF THE FACE AS AN INDEX OF THE BRAIN.—To examine the face, hold a piece of paper in front of it, with one edge vertical; either half of the face can be covered in turn. The face may be divided into three zones by rotating the paper ninety degrees. Dr. Francis Warner (*British Medical Journal*) states the principal movements of the facial muscles are: I. Dilation and contraction of the facial foramina; probably this corresponds in significance to flexion and extension; II. Elevation and depression of parts, such conditions are well seen by comparing the two sides of the face in a case of Bell's paralysis; III. Retraction and drawing forward of parts, as in grinning and screwing up the mouth. Very much can be gained in our knowledge, of the condition of the brain, by this simple means of study. All the zones of the face, dividing them both horizontaly and bilateraly, can be studied with profit. In observing how easily facial asymmetry is brought about, we see evidence that the union of the facial centers is easily dissolved, the asymmetry being especially seen in the lower zone; thus asymmetry is produced by nervousness, by the desire to attack, snarling, or by such defective nutrition or development as produces unequal features when in motion. The higher, more intelligent expressions are symmetrical. The finer, more delicate movements required in expression are often lost, even when the larger movements can all be performed.—[*Chicago Medical Review.*

AURAL VERTIGO.—In a paper read before the Philadelphia County Medical Society, Dr. C. H. Burnett presented the following conclusions on aural vertigo:

There are two sets of fibres in the auditory nerve, viz., the sensory and the motor.

The motor filaments are connected on one side with the cerebellum by means of the inferior peduncles, and on the other side with the nerve-filaments sent to the ampullæ of the semicircular canals.

Irritation of these ampullar nerves may be conveyed from either of the three parts of the auditory nerve itself, in the mechanical form of pressure, and this reflex cerebellar phenomenon as produced by aural irritation should receive the general denomination of aural vertigo, and that Ménière's disease is only a form of aural vertigo. Hence the latter name

unless used after accurate diagnosis of a disease originating in the labyrinth—i. e., in the semicircular canals—will create confusion. But it should be said, in justice to Ménière, that, so far as the writer knows, he has never claimed a general application of his name to all forms of aural vertigo. It has been so applied only by well-meaning but inaccurate diagnosticians.—[*Philadelphia Medical Times.*

LOCOMOTOR ATAXY OF SYPHILITIC ORIGIN (SPECIFIC TABES).—Vulpian thought that about forty per cent. of cases of locomotor ataxy were of syphilitic origin; Fournier has just demonstrated that far from being exaggerated, this statement is rather below the truth—in nearly all he finds a syphilitic source. The practical results of this view are embodied in the following conclusions:

1. In a case of locomotor ataxy seek carefully for syphilis.
2. If this diathesis exist institute severe and prolonged treatment. Endeavor to surprise the commencing tabes, and watch the least symptom which can indicate its invasion.
3. The fear of ataxia later ought to be considered in the treatment of the initial stage of syphilis, which ought to be treated for a long time energetically.—[*Gaz. Hebdomadaire.*

THE NERVOUS SYMPTOMS OF MYXŒDEMA.—Dr. W. B. Hadden thus concludes a paper on the above subject in *Brain* for July, 1882:

(1) That in the early stages myxœdema is essentially a disease of imperfect nutrition, dependent probably on generalized angiospasm.

(2) That the solid œdematous condition of the skin and connective tissue is due to a form of lymphatic obstruction, which may also be ascribed to vaso-motor influence; and that the accumulated products undergo changes which result in the formation of mucin.

(3) That the condition of the thyroid gland is also to be explained on the vaso-motor hypothesis.

(4) That the more severe mental symptoms, such as insanity, occurring in the later stages of myxœdema, are due to alterations in the brain itself.

(5) That although myxœdema, is a distinct morbid entity,

it is probably intimately allied to certain other disorders, such as sporadic cretinism and scleroderma.

(6) That the solid œdema, which is universal in myxœdema, may be localised to various parts of the body, such as the tongue and extremities.

(7) That the primary and essential lesion probably exists in the peripheral sympathetic system, and perhaps, too, in the supreme center in the medulla oblongata, this last supposition being based on the occasional occurrence of bulbar symptoms in myxœdema.

OPHTHALMOLOGY.

FLAP EXTRACTION OF SENILE CATARACT WITH SOME MODIFICATIONS.—W. T——, æt. 67 years, a laboring man, was operated on by me for the above, in the Campbell Town Hospital. Both eyes were affected, the left having been so for two years, and the right for six months, the disease being to all intents equally advanced in both.

I selected the right eye for operation, and decided to adopt the flap method. My first deviation from the usual course being to dilate the pupil with atropine and when the eye was ready, the pupil being thoroughly dilated, I asked my colleague to put him under the influence of chloroform, which he kindly did; this was my other departure from the advice given in the text-books with reference to flap extraction.

I made the corneal section by cutting upwards, and then removed the lens by a blunt hook aided by gentle pressure with the forceps in my left hand. Nothing but the aqueous humour escaped, and the *iris did not protrude*. I then closed the eye with a bandage in the usual manner.

Being rather a large flap I did not examine the eye till the eighth day, as there was no pain, or discharge of any consequence.

On examination the corneal wound had healed and the patient, to his delight, could count my fingers as I held them up, quite readily. In a fortnight he could describe small objects held up to the light, without the aid of a lens, and remarked on the surrounding scenery, and in three weeks from the day of operation was able to leave the hospital with only a little redness of the conjunctiva where the forceps had been applied.

REMARKS.—I think the use of chloroform in no way interferes with the success of a flap operation, but helps it by lessen-

ing the danger of expulsion of the vitreous humour, and preventing any sudden movement of the patient. Dilatation of the pupil previous to operation, is recommended by McNamara, now of Westminster Hospital, my teacher of Ophthalmic Surgery, in his description of his own operation, and I think it helps to prevent Prolapsus Iridis, besides keeping the iris out of the way when you wish to get at the lens.—[H. G. Naylor *Austral. Med. Gaz.*

IRIDEREMIA.—Mr. Arthur Benson said: This is the eye of a boy, aged ten, which I enucleated this morning in St. Mark's Ophthalmic Hospital. The only history I could get from his mother was that when he was nine days old he got the pock, (small-pox) which fell into his eyes and blinded him. He was in Cork for some time and his mother consulted Dr. Macnaughton Jones, who advised enucleation, but she would not consent to it. When he was brought to me the sight was completely gone from the eye. The tension was excessive. The cornea was clear; the lens, which was partly luxated into the anterior chamber, was white and opaque, with calcareous masses in its substance. The iris was completely absent except one small sector above, the apex of which was adherent to the lens capsule. It is probable that the small-pox had very little to do with the eye in question, but the other eye had a leucoma of the cornea with synechia anterior, and partial cataract. The iris in that eye was perfectly formed, $V=\frac{6}{60}$. It is probable that the absence of iris was not congenital, but was the result of atrophy due to the pressure of the dislocated lens pushed forward by the high tension of the vitreous; the glaucomatous condition being the result of intra-uterine or infantile irido-choroiditis. It is not very uncommon to see a considerable degree of atrophia of the iris in such cases; but such complete irideremia as there was in this case, I have not often seen. The boy had suffered from some pain at times in the globe, which was very much enlarged, but there was no staphyloma present.—[*Proc. Dublin Path. Soc.*

TREATMENT OF DIPHTHERITIC CONJUNCTIVITIS.—Dr. Thomas Dixon, Sidney, thus treated a case of diphtheritic conjunctivitis: I wiped the diphtheritic spots with glycerine of Tannin, gave him a lotion of Boracic Acid, with orders meanwhile to poultice, the eye every two hours afresh, applying the Boracic lotion to

the eye each time. The next day the patient was much better, and the the applications caused him no pain in themselves, but in a few hours had lessened the pre-existing pain. Under this treatment the case rapidly cured, the ulcers taking about a week or so to heal and leaving only a very slight puckering in the eyelid from the cicatricial contraction. It was, however, a fortnight, before the firm effusion had sufficiently left the lid to allow the eye to see satisfactorily, and indeed it was a month before it resumed its proper proportions and color. I gave no internal medicine at any time and ceased the poultices, except during the night, after two days, stopping their use altogether after four days, the swelling being so vastly less, and the activity of the inflammation long gone past. I may be asked whether I tried to pull away the membranes. I did, but so enrooted did they seem in the tissues forming the base of the ulcer, that I thought that if I removed the surface membrane, it would be only partial, or so affect the tissues as to increase the subsequent scars. Hence the cure seemed to take place by the membrane lessening at the edge, and the epithelial edge of the ulcer working its way into the ground rendered sterile by the lotion getting in.—[*Australasian Med. Gaz.*

APHORISMS IN OPHTHALMOLOGY.—At the annual meeting of the Medico-Chirurgical Society of Maryland, Dr. J. J. Chisolm treated of eserine, which has taken the place of all other remedies in corneal affections; pilocarpin, which had produced the best results in the author's hands, internally used, of all the articles in the pharmacopeia in acute inflammations of the eyeball; salicylate of sodium, of the greatest value in iritic and scleral inflammations, whether specific or rheumatic; homatropin, to be preferred to atropia and duboisia on account of its transient mydriatic effect.

He also laid down the following aphorisms for general practitioners practicing ophthalmology:

1. Do not blister. 2. Do not use nitrate of silver. 3. Do not use acetate of lead. 4. Treat affections of the mucous surface by weak astringents—borax, sulph. zinc, tannin—and cleanliness. 5. Use weak solutions of eserine for corneal affections. 6. Atropia solutions are essential to break up recent iritic adhesions. 7. When in doubt, consult early with a specialist.—[*The American Practitioner.*

Clinical Reports from Private Practice.

Article LX.

Death from Lightning. Two Persons Killed and two Severely Shocked. By Thos. H. Hammond, M. D., of Kickapoo, Kansas.

On the 4th of August, about four o'clock P. M., we had several very severe claps of thunder, accompanied by very vivid lightning. In a short time a messenger came for me saying that a couple of children had been struck by lightning at Mrs. Huber's store. I started immediately for the place, it being about one hundred and twenty-five yards distant. I found two children, Lilly Rogers, colored, about twelve years old, and Mortie Huber, sixteen years old, lying, one at either end of the porch. The girl was dead. The boy looked as though he were dead; his pulse was just perceptible at the wrist, but soon ceased. He did not breathe. I made a solution of carbonate of ammonia and, with a spoon put a little of it into his mouth, but he did not swallow. He was dead. He was struck on his left temple, just back of his left eye, where there was a copper colored spot, contused and burnt. About the middle of the left side of the neck there was an abrasion of the skin, narrow, but two or three inches in length, in a vertical direction. I am told by those who laid out the body, that there were slight marks of lightning upon his left side. There was a contusion on the upper portion of his left foot, about the middle, and again at the beginning of the great toe—the lightning seeming to leave at this toe.

I examined carefully to see if his bones were broken. They were not.

The mother, Mrs. Huber, was severely shocked, and could not hear well for a couple of hours, though she went round trying to administer to the wants of her children. Henry Huber, a little fellow four years old, was severely shocked; he vomited, his pulse was feeble, irregular and intermittent, and at one time I feared a fatal result quickly in his case. I gave him a little of the solution of carbonate of ammonia, but he seemed not to like the pungent qualities of this salt. I ordered a few drops of whisky to be given him. In a short time his pulse was regular and I was surprised to see how full and strong it was for a child. He slept soundly and I did not disturb him till about nine o'clock, when I ordered a moderate dose of calomel rubbed up with white sugar to be put into his mouth, to clear out his bowels.

His sleep seemed to be somewhat disturbed during the night; he talked incoherently, but was all right the next morning.

The corpse of the colored girl was taken away by her friends, and I did not see it any more. I am told that there were but slight traces of lightning upon her body. Being quite black, bruises could not easily be seen.

The house had a porch fronting the south. There were four persons on this porch—the two who were killed and the two who were stunned. A large cotton tree stood five feet three inches in front of the porch. The trunk of the tree was five feet and a half high where it forked. The topmost portion of the fork that was nearest the house was struck by the lightning, but on the south side, the side looking from the house, it barked and shivered it for about five or seven feet, after which the track was seen on the bark, colored and looking as though something heavy had been dragged upon the bark. It ran down this, on the side from the house, and passed to the other limb of the fork, the limb that was farthest from the house, striking it on the side that looked towards the house, passing down two feet and shivering it. Then it had reached the trunk. I *think* there were slight traces of the lightning passing down the trunk of the tree; the ground at the foot of the tree was not torn up. It passed—at least the main portion—from the tree, from where it forked, to the tin band around the gutter, striking the band above the gutter six feet three inches from the ground, passing horizontally from the tree to the gutter and over the shortest space to reach the gutter. I saw no more marks of lightning on the tin gutter; it passed eastward, missed one post of the porch, but shivering the next, then missing another post, it struck the end of the porch room, one foot lower than the gutter and twenty-one inches further north than the gutter. The porch room is seven feet long. The lightning passed through this, descending two feet, striking the other end of the room, descending and tearing up the ground a few inches from the corner of the house.

The boy and girl that were killed were standing, probably about eight feet apart, with their faces to the south. Mrs. H. and the little boy were between them; she was standing with her face to the north, but was stooping at a washtub. There was no mark of the lightning on the floor where the boy stood.

Consulting a scientific work, it is stated that lightning or electricity is generally discharged from the clouds to the earth, sometimes from the earth to the clouds. A scientific gentleman who viewed the premises was of the opinion that in this case it passed from the earth to the clouds. I think this is untenable and that we have more difficulties to encounter than in supposing it to have passed from the clouds to the earth.

Reports on Recent Progress in Medicine.

Article LXI.

Report on Surgery. By R. W. Wilcox, M. D.

Alveolar Abscess.—A boy about twelve years old, presented himself with a mass of granulations of the size of a small marble, situated a little below and to the outside of the inner canthus of the left eye. The patient said that about three weeks before, he had suffered pain in that side of his face, which had become swollen and had discharged matter at the point at which the "red bunch" subsequently began to grow. The situation of the lesion and its history, especially as there exists some conjunctivitis on that side, seemed to point to an affection of the lachrymal sac. But somehow, on examination, a probe entered in the duct, passed freely, while another passed into the center of the mass of granulations proceeded over the bone and could be felt in the gum just above the canine tooth of that side. The second incisor and the canine were found on extraction, to have their roots eroded, and a probe could be passed readily upwards to the opening under the eye. The granulations treated by nitrate of silver quickly disappeared, while the opening in the mouth was sufficient to allow of the rapid healing of the fistulous track.

This case well illustrates the uncertainties in regard to the point of opening of an alveolar abscess, if left to follow its own course.

Molluscum.—The patient, a boy of ten years, had a small mass on the under lid, near the ciliary margin, distant half an inch from the outer canthus of the right eye. In appearance it resembled a verruca with a slightly curved neck. A moderate conjunctivitis, the result of poulticing, was also present. On no other portion of the body was a similar growth found. The mass was incised and with pressure the characteristic contents were removed.

Varicose Veins.—The patient was an old man with beautiful examples in both legs. Since in the right leg there existed some

phlebitis, it was not operated on, in the hopes that the inflammation might prove sufficient to obliterate the veins. On the right side the operation was done, without an anæsthetic, as follows: A piece of carbolized cat-gut, carried in a large curved needle, was passed through the skin about half an inch from the course of the vein and brought out at an equal distance on the other side. In this stitch the cat-gut passed under the vein. The needle is then reintroduced at the place of its exit and carried backwards between the vein and the skin, and made to emerge as near as possible to the place where it entered. The cat-gut is then firmly tied and the ends cut off, so that if possible the knot shall disappear under the skin. A dull needle is preferred by the operator, as the point is not so likely to emerge at an undesired place. The spray is used and a complete Lister dressing placed over the site of the operation. In this case the veins were tied in four places, one of which was above the knee, and the patient kept quiet in bed for a few days. It is claimed that this method has been very successful and the dangers are far less than by any other operation. It certainly has simplicity and ease of accomplishment to recommend it.

EPULIS.—This case, occurring in a young girl, was chiefly noticeable on account of the size of the tumor, which, originating among the second incisor, canine and first bicuspid teeth, had extended inwards to the middle line of the mouth. The operation was thoroughly done with chisel and saw, after the extraction of the teeth, although the antrum was opened. The patient made a good recovery.

A FISTULA KNIFE.—The instrument in use here seems worthy of notice. It consists, simply, of an ordinary curved bistoury, mounted on a fixed handle, the point of the bistoury being prolonged in the form of a probe to the length of three or more inches. The method of using it is, the patient being in position, the left index finger oiled, is inserted in the bowel, the probe end of the instrument passed into the sinus, the internal opening found, and the point of the instrument carried outside of the sphincter. To complete the operation, the knife is advanced and the band severed. The advantage being, that with one instrument, and at a single movement the operation is done.

STRABISMUS.—The usual subconjunctival operation is done. After the tendons are divided, a of bit silk is passed through the

conjunctiva at the edge of the cornea, opposite to the site of the operation, next passed through the eyelid at the canthus and the eyeball brought into position, the loop is tied. The stitch left in for a day or so, prevents the eyeball from returning to its former position.

HARE-LIP.—Several cases have lately been operated on with good results. In one case the cleft extended upwards by the side of the nose, as far as the inner canthus. Sutures of three kinds of material are used: horse-hair for the skin, silk for the mucous membrane, and wire. Particular emphasis is laid on the order of insertion and of tying these sutures, as it is claimed that only by this care can exact adaptation of the edges of the wound be obtained. The silk sutures through the mucous membrane are first to be placed, then the wire, and lastly the horse-hair. In tying, the wire sutures are first to be secured, next the edges of the skin are to be brought together by the horse-hair, and lastly the silk sutures are to be tied with equal care, thus completing the operation.

NECROSIS OF THE MALAR BONE.—In accordance with Dalby's suggestion, made some years ago, in regard to the employment of the dental engine in the removal of bony tumors in the auditory canal, it was decided to employ the machine in this instance. Although the burr used was small, and the operator apparently thought that the instrument could remove the soft parts as well, yet the operation was rapidly and easily accomplished, in a manner far more agreeable than the customary chiseling and gouging.

Although the dental engine has often been employed in America for drilling bones in ununited fractures, yet its use here is evidently a novelty.

Edinburgh, Sept., 1882.

Article LXII.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

The Bacterium of Pemphigus.—Bacteria have invaded the realm of dermatology and they are being rapidly found in a great many skin diseases. Unhappily, the diagnostic differences of the different bacteria have not been pointed out and it looks a little as if these micro-organisms, instead of causing the disease, would rather seem to be wanderers who have found a temporary home. That this is the case in many cases, is found by the want of success with which carefully conducted inoculations are attended.

M. Paul Gibier has found micro-organisms in the serum which fills the bullæ found in acute pemphigus; he has also discovered them in the urine of the patients. The organism is found in chains of rounded elements, showing active movements (*Annales de Dermat. et de Syphil.*, Vol. III., No. 2). By cultivating the urine or serum it can be reproduced; but it cannot be transmitted by contagion, and all attempts to propagate it by inoculation have, so far, failed.

Rhinophyma.—The New York *Medical Record* contains an extract from the *Vierteljahr. für Dermat. und Syph.* In it is stated that Hebra has excised specimens in two cases of rhinophyma and examined them anatomically. The peculiarity of the neoplasm consists in the fact that it represents only the normal constituents of the skin, but in abnormal proportions. The epidermis and rete Malpighi are not changed. In the cutis, on the other hand, there is a very marked increase in the size of the connective tissue fibres, the sebaceous glands are enlarged, and are composed of a greater number of lobules, and many dilated vessels are visible. The fibres included between the glandular lobules contain young nucleated connective tissue. The author regards them as primary in the neoplasm, in so far as they are true formative elements.

The process is, therefore, to be considered as a hyperplasia of the skin in all its parts, with the exception of the epithelial

structures covering the derma. It is to be differentiated from elephantiasis arabum, which is always accompanied by inflammatory phenomena and chronic œdema. On the subject of operative procedures, the author only alludes to the statements of Sinnert and Chausit. In cases operated upon, some by his father, some by himself, everything deforming the nose was simply removed, without covering the loss of substance. Recovery was always complete. Hemorrhage during this procedure is intense, and to it is often due, the author acknowledges, the failure to complete the operation in one sitting. Hebra might have overcome this difficulty if he had known the galvano-caustic method of Bröer. By this means two cases were treated at the clinique at Breslau, without loss of blood, and with complete success.

MICROCOCCI OF LUPUS.—Lupus is another skin disease having its micro-organisms. The *Medical and Surgical Reporter*, Aug. 19, 1882, states that Dr. M. Schüller has been able to detect micrococci in the smaller papules of lupus. They are observed in the larger papules also, but it is difficult to find them there. They were never absent in the sebaceous glands in the region attacked by the disease. The editor adds that this fact would seem to account for the good results which have been gained by the local application of pure carbolic acid, but it will not account for the good effects obtained by methods which do not destroy the parasites. Besides it has not yet been demonstrated that these micrococci are autochthenes and it is as easily conceived that they should have been imported or lodged in lesions promising such a good nidus. But the age of parasites has come over us, and great is the micro-organism in the causation of disease.

BUCCAL HYDROA.—The September number of the New York *Medical Journal and Obstetrical Review* contains the following on an article by E. Quinquaud, which appeared in the *Annales de Dermat. et de Sylph*:

The term *hydroa* occupies an indefinite position in the nosology of skin diseases. With many dermatologists it seems to serve the purpose of a convenient limbo, to which are consigned such vesicular diseases as cannot be readily classified elsewhere. Bazin has not made the subject clearer by adding a vacciniform and a bullous hydroa, one of which according to Quinquaud properly belongs to dysidrosis and the other to pomphigus.

'Under the term erythema multiforme, many writers, more particularly the Germans, describe a vesicular form, which answers tolerably to Bazin's simple hydroa. Quinquaud, in the article before us, calls attention to a feature of the disease about which comparatively little has been said—namely, the implication of the mucous membrane. He describes an *enanthem* as well as an *exanthem* as pertaining to the disease. Bazin has only described a hydroa of the mouth, but Quinquaud has observed it upon the mucous membrane of the glans penis, the labia minora, and the nostrils. In these situations it is not uncommon in infants, and the lesions occurring about the genitals and anus are liable to be mistaken for eruptions of syphilis. The writer describes four phases of the enanthema lesions of hydroa: First, an "erythematous period," which is of but a few hours' duration, and which is characterized by roundish, oval spots or patches scattered over the mucous membrane of the mouth; they are common about the lower lip, and in the vicinity of the frænum, and also about the frænum of the tongue. Soon the superficial layers of the mucous membrane of the center of the erythematous patches are elevated by exudation, forming whitish or opaline spots, constituting what the writer terms the "erythemato-phlyctenoid," period. Next, the vesicle is eroded, and the "ulceration period" begins. In this the spots present an opaline, greyish, exuding surface, which bears a certain resemblance to the mucous patches of syphilis. The chief aim of the writer's article is to establish the differential diagnosis of the two diseases. The main points are that, in syphilis, the patches are less diffused (more circumscribed) than those of hydroa; they show less tendency to inflammatory reaction; moreover, the situation of the patches differs in the two diseases. In hydroa the little fissured lesions at the corners of the mouth, so common in syphilis, are generally absent. Finally, in cases of hydroa, the concomitant exanthem of the skin assists the diagnosis.

WHAT IS ECZEMA?—What is eczema? Recent pathology has made it tolerably clear that it is a catarrh of the true skin, an inflammation, acute or chronic, with hyperæmia, proliferation of existing tissue elements, and exudation of blood elements. So says R. M. Simon in the *Birmingham Medical Review*; he continues: Accepting this view, which appears proved, how many independent skin diseases we can remove from our classification,

and how easily can we see the relationship between hitherto separated affections. We can see how the simplest form of skin catarrh, the simple vascular engorgement, which we call erythema, may pass by slight exudation, underneath the epidermis into the condition of macules, by a greater local irritation, causing proliferation of existing cells into the papule; and how the papule may, by passge of the serum through the lower epidermic strata, become a vesicle; the vesicle, by fatty degeneration of its contents, become a pustule; and how such affections as impetigo and ecthema, differing pathologically only in the size of pustules, be referred to their true classification. Surely it would be better to give up the name of eczema, seeing that we often have cases no papular eczema, without any obvious exudation, and for all this class of cases substitute the name of dermatitis.

MULTIPLE SARCOMA OF THE SKIN.—A case of this very rare disease occurred in Neumann's clinic at Vienna lately. It is described by a correspondent of the *Maryland Medical Journal*, and reproduced in the *Medical Record*, New York. A Russian Jew, aged thirty-four, and apparently in excellent health, appeared, having on his abdomen an erythema which upon further investigation was found to be lumpy. His abdomen looked as if covered with large varicose veins. Upon turning him around, under the right scapular, there was a half-moon shaped tumor about the size of a large watch, raised above the surface the skin about an eighth of a inch. There was no ulceration. The color was a light brown, and the surface had the appearance of normal skin when viewed under a magnifying glass. This was the only tumor projecting above the skin. Various lumps could be felt on the abdomen, which were quite hard and vary in size. The disease was seven years old. Leprosy, syphilis, and sarcoma cutis, were the three possible diseases, and as the two former were excluded, both Neumann and Kaposi settled upon the latter, making a diagnosis of multiple sarcoma of the skin. Such cases are very rare, Neumann only having seen three in the course of his large experience.

Book Reviews.

Article LXIII.

Suppression of Urine. Clinical Descriptions and Analysis of Symptoms. By E. P. Fowler, M. D. Ninety-three Clinical Cases, with Illustrations, Tables and Diagrams. Paper presented to the New York Medico-Chirurgical Society, Dec. 14, 1880, 8vo. pp. 86. (New York: Wm. Wood & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

This is a very valuable monograph which is divided into six sections, the first of which is devoted to the history and autopsy of a case of anuria which persisted ten days and two hours. In the second section ninety-three clinical cases are tabulated, whilst in section third are mentioned cases in which it is alleged that there was a marvellous duration of anuria among which we notice a case related by Vieussens, of a woman, who had *seven years of complete anuria*. Some other remarkable cases are mentioned.

In section four are given statistics respecting anuria and associated symptoms. In this part are found many valuable tables and diagrams. The fifth section is a résumé whilst in the last section is a table giving a statement of the data and symptoms of the ninety-three cases mentioned before; a table giving a list of cases, duration of anuria, authors and references. Although quite a number of references are given in this latter, still they are far from completing the list which it would be difficult for anyone to compile unless he had access to an enormous amount of medical literature and the time to devote to it.

The monograph is an excellent one and can be read with profit by those interested in renal diseases.

Lectures on Electricity, (Dynamic and Franklinic) in its Relations to Medicine and Surgery. By A. D. Rockwell, A. M., M. D., 8vo., pp. 122. (New York: Wm. Wood & Co., 1881. St. Louis: Hugh R. Hildreth Printing Co.)

The present is the second edition of the manual and the attention that Franklinic electricity has attracted of late induced the author to speak more at length of this method. The whole consists of eight lectures which while restricting the scope and preventing the author from considering his subject as fully as

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deserves, are yet so well written that a great deal of practical and much theoretical information may be derived from an attentive perusal.

Electro-physics, electro-physiology, electro-diagnosis, methods of application, static or franklinic electricity, electro-dynamic apparatus, treatment of special diseases and electro-surgery are the subjects which occupy the author's attention and are treated of in a clear and comprehensive manner, by the aid of numerous illustrations.

1. A TREATISE ON HUMAN PHYSIOLOGY; designed for the Use of Students and Practitioners of Medicine. By JOHN C. DALTON, M. D. Seventh Edition, with two hundred and fifty-two illustrations. 8vo. pp. 722. (Phila.: Henry C. Lea's Son & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

2. MEMORANDA OF PHYSIOLOGY. By HENRY ASHLEY, A. M., M. D. (Lond.) Third Edition thoroughly Revised, with Additions and Corrections by an American Editor. 32mo., pp. 319. (New York: Wm. Wood & Co., 1882.)

1. This standard work has successfully passed through six editions and this, the seventh is a great improvement on former ones. The great advances recently made in experimental physiology rendered a new edition indispensable. The chief additions made are in the departments of physiological chemistry, the localization of function in certain parts of the cerebro-spinal axis and embryology.

Dr. Dalton has done his work well and conscientiously and has produced a book which, though not quite as scientific as Foster's is yet more adapted to the wants of the student and practitioner who has no especial *penchant* for physiological investigations. The publishers have also largely contributed to the success of this work by presenting it in such an attractive form.

2. We have always been opposed to memoranda, handbooks, compends *et id omne genus* of books whose sole object seems to be to pander to the laziness of students. The best that we can say of this little manual is that, in its class, it may take a leading place and its popularity may be guessed at when we consider that it has gone through three editions. It is founded upon Quain and Gray for anatomy and derives the physiological "points" from Foster.

1. TRANSACTIONS OF THE MEDICAL Society of New York, for the year 1881. 8vo., pp. 445. (Published by the Society, 1881. Tuar, Smith & Bruce, Printers, Syracuse, N. Y.)

2. Transactions of the Twenty-Eighth Annual Meeting of the Medical Society of the State of North Carolina, held at Ashville, N. C., May 31, 1881. 8vo., pp. 128. (Wilmington, N. C.: Jackson & Bell, Printers, 1881.)

3. Transactions of the Twelfth Annual Session of the Medical Society of Virginia held at Old Point Comfort Oct. 10–12, 1881. Part III—Continuing Vol. III., pp. 265–488. (Richmond: J. W. Ferguson & Son, Printers, 1882.)

4. Transactions of the American Medical Association for 1881. Vol. XXXII, 8vo., pp. 684. (Phila.: Printed for the Association. Collins, Printer, 1881.)

5. Proceedings of the American Society of microscopists, Fourth Annual Meeting, held at Columbus, Ohio, Aug. 9–11, 1881. 8vo., pp. 102. (Buffalo: Bigelow Bros. Steam printers, 1881.)

6. Transactions of the American Otological Society. Fourteenth Annual Meeting, Newport, R. I., July 26, 1881. Vol. II, part 5, 8vo., pp. 91. (Boston: A. Williams & Co., 283 Washington Steeet. 1881.)

1. The proceedings of this Society are gotten up in the same, excellent shape as in preceding years and contains a great deal of valuable and interesting matter. There is a large number of communications by the leading men of New York and such as cannot but engage the attention of every progressive physician. The major part of them have already appeared in various journals, but find a more permanent shape in this volume. The medical society of New York can justly feel proud of its transactions and of the men who contribute to fill up its pages.

2. Somewhat more modest in appearance and less bulky are the Transactions of the medical society of North Carolina. The papers included in this appeared in the *North Carolina Medical Journal* for the most part, there being but a few papers among which one on a case of Diffuse Aneurism of the Orbit; the rest being made up of reports on progress in the various departments of medicine and surgery. A very short notice of a case of ainhum is given by Dr. E. H. Hornaday.

3. The Annual Address is by Dr. Hunter McGuire being some clinical remarks on cancer of the breast in which he reviews some of the current doctrines on this subject, closing with the history of three cases. Then some reports on advances in anatomy, surgery and medicine. Catarrhal deafness is the

title of a volunteer paper by Dr. Jos. A. White. The physiological and therapeutical action of quinine is a very long volunteer paper which has been published in book form since and will be reviewed in its proper place.

4. The volume for 1881 is not quite so voluminous as that for the preceding year, but is the same in style as the transactions of preceding years. The papers in this volume have long since appeared in the columns of the medical press and there seem to be some prospects that this mausoleum of medical articles will be replaced by a journal.

5. This, though not large, is a very good number and shows that the members of the association take an interest in microscopy. There are a number of interesting papers, with several plates illustrative of some of them. To those about purchasing an instrument, Geo. E. Fell's paper on the binocular microscope and stereoscopic vision will be of great assistance. The other papers, numbering nine are good but we are debarred from a more extended notice by want of space.

6. This book contains the minutes and thirteen papers with the discussions thereon. The first paper given is by Dr. S. Theobald of Baltimore, on Suppurative Otitis. For some time he had used a powder composed of equal parts of boracic acid and oxide zinc, occasionally it had failed to do good, and he employed in its stead a mixture of boracic acid and alum. These powders were applied by means of an insufflator, careful syringing preceding the operation, frequently he retained the powder in the ear by stopping it with a bit of borated cotton. He claims that this is a mild and non-irritative treatment; he has detailed eight cases, in which this method was employed.

The next paper is a very important one by Dr. Roosa, on the value of incising the membrana tympani in certain conditions. This is a short paper, but an exceedingly valuable one, he uses what may be called a gentle method, making the incision with a small needle and just large enough to give exit to the pus, blood or mucus. This is followed by a discussion which, in the main, agrees with the author of the paper.

These transactions although not very bulky are very interesting and instructive.

THE PHYSICIAN HIMSELF and What He Should Add to the Truly Scientific. By D. W. CATHELL, M. D. 8vo., pp. 194. (Baltimore: Cushings & Baily, 262 W. Baltimore Street, 1882.)

We received this work from the author and to him we return our cordial thanks. It is very seldom that we see a work directed especially to physicians' private life. When the possessor of this book is weary of perusing medical books and journals he can take up this volume, and let him open it where

he will, he will find a paragraph that will both rest, please and instruct him.

AN INDEX OF SURGERY: being a Concise Classification of the Main Facts and Theories of Surgery, for the Use of Senior Students and others. By C. B. KEETLEY, F. R. C. S. 8vo., pp. 208. (New York: Bermingham & Co., 1882.) Price $1.00.

AN INDEX OF SURGERY: being a Concise Classification of the of the Main Facts and Theories of Surgery for the Use of Senior Students and Others. By C. B. KEETLY, F. R. C. S. 8vo., pp. 320. (New York: Wm. Wood & Co., 1882.)

This book one might infer to believe from its title, is an index to authors; but upon looking at its contents it is seen to be a compend or condensation of the principal points connected with surgical diseases, these latter being arranged alphabetically. It is rather a dictionary of surgical diseases giving in as concise a manner as possible their causes, symptoms and treatment. An appendix is added, devoted to several subjects not fully entered into in the body of the work or such as are not mentioned at all. Following this are some notes on ophthalmic surgery by Henry Juler, the whole concluding with an index of names presenting quite a number of respectable authorities.

On the whole this is a good reference book and both publishers have issued it in a presentable form and at a low price.

1. THIRD ANNUAL REPORT OF THE STATE Board of Health of Illinois, with the Official Register of Physicians and Midwives, 1880, 8vo., pp. 268. (Springfield: H. W. Rokker, State Printer, 1881.)

2. INDIANA STATE BOARD OF HEALTH. Rules and Regulations issued by the State Board. To this is added a Nosological Table prepared and published by the State Board of Health. 8vo. pp. 51. (Indianapolis: Wm. B. Burford, printer, 1882.)

3. FIRST BIENNIAL REPORT of the North Carolina Board of Health. 1879–1880. 8vo., pp. 201. (Raleigh: News and Observer, State Printers and Binders. 1881.)

4. MEDICAL AND SURGICAL REPORTS of the City Hospital of the City of Boston. Third Series. Edited by DAVID W. CHEEVER, M. D., OLIVER WADSWORTH, M. D., and A. L. MASON, M. D. 8vo. pp. 290. (Boston: Published by the Trustees, 1882.)

1. This report is like the preceding ones, the only difference being that the list of names has been revised. It is a very useful hand-book of information relative to the physicians and midwives of a State which boasts—and deservedly so—of the efficient manner in which the practice of medicine is regulated. The secretary of the Board, Dr. Jno. Rauch, deserves full credit for the efficiency and promptness displayed in these annual reports.

2. This contains all rules and regulations pertaining to the points connected with the public health, burials, etc. The nosological table is essentially that of the Royal College of Physicians and Surgeons and has only been provisionally adopted, and is a very good one, it being required in a great many cases that supplemental information be furnished.

3. The business report occupies thirty pages when appendix A is reached giving a method for performing post-mortem examinations adapted from the German regulations of 1877. Appendix B. is a circular on ventilation, drainage, drinking water and disinfectants in which is given some valuable advice. Analyses of suspected waters are made free of charge by the State chemist.

Appendix C. is an essay of about eighty pages on Sanitary Engineering by Wm. Cain. The report closes with a table compiled from the monthly bulletin of the Board of Health.

4. This is a valuable collection of excellent papers contributed by the staff of the hospital and illustrated by a number of fine plates, engravings and artotypes. There are fifteen papers in all and a number of illustrations the whole making up a handsome volume.

A valuable paper is that on typhoid fever by C. Ellery Stedman in which 1,036 were put under contribution. Many cases are detailed and everything is carefully tabulated.

The first paper, on the pathological histology of the spinal cord, is well written and accompanied by three carefully drawn plates, showing the normal and pathological structure of the spinal cord. Among the suagical cases mentioned by David W. Cheever is one of cancer of the tonsil removed by external incision. The structure of the normal tonsil and of cancer are well shown by means of artotypes taken from *camera lucida* drawings. An artotype of an enchondroma of the femur from a case in which the amputation was made at the hip shows an enormous tumor, the limb after removal weighing fifty-four pounds and measuring thirty-eight inches in circumference.

On page 261 is figured a stone, five inches long by three in width, removed by the peritoneal cavity of a sailor, who had passed it in the rectum to relieve a retention of urine, of a spasmodic nature. The patient recovered. An interesting case of complete fissure of the lower jaw—congenital—is given. An

operation, followed by cure, was performed and the state of the patient before and after the operation is well seen in plate V.

A variety of new surgical apparatus, employed in the hospital, is described by Wm. P. Bolles. Among the most prominent is an adjustable fracture box by which the limb may be placed in almost any desired position and any limited portion examined without disturbing the remaining part. It is a great improvement over the old fracture-box. Some fore-arm splints, a ham splint, invalid table, finger splints, etc., are described and figured.

We cannot do justice to the book in this short review as it is replete with interesting and useful matter of the best kind.

ILLUSTRATIONS OF DISSECTIONS in a Series of Original Colored Plates the Size of Life, Representing the Dissection of the Human Body. By GEO. VINER ELLIS and G. H. FORD, Esq. The Drawings are from Nature, by Mr. Ford, from Dissections by Prof. Ellis, reduced on a uniform scale, and reproduced in fac simile expressly for Wood's Library of Standard Authors. Vol. II. Second Edition, 8vo., pp. 206. Plates LVIII. (New York: Wm. Wood & Co., 1882.) Feb. No. Library of Standard Medical Authors.

This is indeed a handsome volume and the plates are well drawn and colored. This volume contains dissections of the perineum, abdominal parieties, pelvis and lower limb. The text is condensed and clear and the plates are also very easily understood and cannot but be of the highest value to those engaged in practical dissections. Messrs. Wood & Co. are continually improving in the matter they present in this library and are now furnishing really valuable works at a nominal price and placing within the reach of every physician the means of cheaply acquiring a valuable library of standard medical literature.

UNFORGIVEN. By ANNA C. ELLIS. 8vo., pp. 258. (St. Louis: R. P. Studley & Co., 1882.)

It is not often that we are called upon to review novels, but this is a good story told in a charming manner and will undoubtedly reflect credit upon its author, who is a lady of this city. The style is good and we find many elegant touches of nature in this interesting narration.

The book is printed in large, clear legible type and the only fault we have to find with the mechanical execution is the want of care evinced by the proof-reader.

DISEASES OF THE EAR IN CHILDREN. By ANTON VON TRŒLTSCH, M. D., Professor in the University of Wuerzburg. (Translated by Orne Green, A. M., M. D. From Gebhardt's Handbuch der Kinderkrankheiten). 8vo., pp. 164. (New York: Wm. Wood & Co., 1882.)

This is the first original work on the ear that we have seen for some time. The author has divided his subject into five heads as follows: I. The Diseases of the External Ear. II. The Diseases of the Middle Ear. III. Foreign Bodies in the Ear. IV. The Diseases of the Inner Ear or Labyrinth, and V. Deafmutism.

He very correctly says that obstruction of the meatus with cerumen is by no means rare with children.

The author states, *f. i.*, (p. 35), that the air in the pharynx may momentarily be in direct connection with that in the middle ear. This is a subject to which we have paid special attention, and we are certain that the author is in error. But in holding this opinion he agrees with every otologist of the present day.

The doctrine of the possibility of the air in the middle ear being of *equal density* as the outside air, cannot be proven by a single experiment, but on the contrary it may be proven incorrect by numerous experiments.

It is admitted that there is a continuous absorption of air in the tympanum. This must be removed. It follows that the supply must be, and is, as uniform as the concavity of the membrana tympani; but if the supply is infrequent or irregular, the shock of its evidence would suddenly affect the location of the membrana tympani, consequently the acuteness of the hearing also. Therefore, this mode of reneweng air to the middle ear would give rise to an irregularity in hearing, which is not in accordance with our observations.

With the normal ear, hearing depends upon the reception of sound waves by the membrana tympani, and their transmission via the ossicula auditûs and the liquid in the internal ear, to the auditory nerve. To allow a uniform transmission of the sonorous undulation to the auditory nerve, the membrana tympani must have a uniform degree of tension. The relation between the tension of this membrane and its normal vibratory capacity, is as much governed by physical laws as is that of the tension of a piano string to its uniform tone, or of the convexity of a lense to its uniform focal distance; neither of the three will allow of any deviation, and at the same time be perfect in its working operations. Yet we are asked to believe this indispensable, uniform condition of the membrane can be maintained by an irregular act—the act of deglutition.

A continuous air abstraction necessitates a continuous air renewal; either you must check the continuous exhaustion or

you must allow a continuous supply. The alternative is physically unavoidable.

To maintain this uniform tension, it is essential that the air in contact with the internal surface of the membrane shall bear a constantly uniform relation, as to density, to that on its internal surface; as every slight variation of the internal air density instantly affects the position, consequently the tension of this very mobile organ. It follows that there must be one uniform condition of the Eustachian tube, or this imperative constancy of air density in the cavity, and tension of the membrana tympani, is impossible.

That the air in the normal tympanic cavity is not of equal density with that on the outside, the air in the tympanum being rarefied, is proved by the observation that there is increased concavity of the membranæ tympani, in those patients affected with patency of the Eustachian passage, that improved in their hearing by swallowing while their nostrils are closed. We have seen that this increase of curvature of the drum-head did not take place while the air densities on both sides of the membrane were equal; and the act—deglutition—that the patient performed for the relief of his disability of hearing, abstracted air from the cavity, causing the membrane to recede, and thereby increasing his hearing. The co-existence of these facts affirms that the air in the normal middle ear is in a rarefied condition.

Every intelligent otologist must at once agree that the density of the air in the middle ear is a subject of great importance.

In this valuable book we find many startling statements concerning the frequency with which pus is found in the tympanum in post-mortem examinations.

In 1858 the author examined forty-seven petrous bones taken from twenty-four unselected children out of the Polytechnic, and found the middle ear normal in only eighteen, the other twenty-nine ears showed in various degrees the appearance of a purulent catarrh. Masses of pus filled the cavities, wherever the loosened and hyperæmic mucous membrane was never perforated. According to Swartz (1864) for every five examinations of new born children, in two the tympanum will be found filled with pus.

Worden (1868) found in eight ears which, in the course of four months, he received from the St. Petersburg Foundling House, a normal middle ear in only fourteen, while purulent catarrh existed in thirty-six, and simple mucous catarrh in thirty; in four of the cases pus was also present in the labyrinthal cavities.

This same observer also called attention to the injurious influences which obstructed or weakened respiratory movements or disease of the pharyngeal or nasal mucous membrane must exert upon the middle ear.

Kutscharinez (1875) made examination of about two hundred and thirty accurately described cases, aged from a few days to

seven months; in this large number the tympanic mucus membrane was normal but in thirty-five; in fifty it showed either a slight or intense catarrhal inflammation and in one hundred and fifty the tympana were filled with a yellowish green pus.

These very astonishing results should undoubtedly receive more attention clinically. There must be some universally prevailing cause for such uniformity in the diseased condition of the infants' ears examined, and whatever the cause of their sickness, no doubt can be entertained as to its being something found in every foundling hospital, and it does seem to the author (p. 11) that such uniformity of condition must indicate a uniformity in cause.

The author's description and treatment of acute otitis media is excellent, but we are sorry to say that we cannot agree with him in the treatment of chronic catarrh of the middle ear. We are, however, greatly pleased that he lays great stress upon the thorough treatment of the pharyngo-nasal cavity.

Everything that he says upon the pathology of the ear, cannot be excelled. The book is one of the most valuable works on this subject now existing.

T. F. R.

Books and Pamphlets Received.

Article LXIV.

The Physician Himself and what he should add to his Scientific Acquirements. By D. W. Cathell, M. D. Second Edition, carefully revised. 8vo. pp. 208. (Baltimore: Cushings & Bailey, 1882). Price $1.25. From the author.

Transactions of the American Otological Society. Fifteenth Annual Meeting, Lake George, N. Y., July 25th, 1882. Vol. 3, Part I., 8vo. pp. 74. (Boston: A. Williams & Co. 1882).

Mental Pathology and Therapeutics. By W. Griesinger, M. D. Translated from the German. (Second Edition) by C. Lockhart Robinson, M. D. Cantab., and James Rutherford, M. D., Edin. 8vo. pp. 375. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.) July No. Woods' Library of Standard Medical Authors.

Diseases of the Rectum and Anus. By Charles B. Kelsey, M. D., 8vo., pp. 299. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.) August No. Woods' Library of Standard Medical Authors.)

Cerebral Hyperæmia. Does it Exist? A Consideration of some Views of Dr. William A. Hammond. By C. F. Buckley, B. A., M. D. 24mo., pp. 129. (New York: G. P. Putnam's Sons, 1882. St. Louis: Hugh R. Hildreth Printing Co.) Price $1.00.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M. D. Third Edition Revised and Enlarged. 8vo. pp. 685. (Phila: J. B. Lippincott & Co., 1882. St. Louis: St. Louis News Co.) Price $6.00.

Transactions of the State Medical Society of Arkansas at its Seventh Annual Session. 8vo., pp. 170. (Little Rock, Ark. Printed by Kellogg Printing Co. 1882.)

Medical Communications of the Massachusetts Medical Society. Vol. XIII., No. I., 1882. 8vo. pp. 76–80. (Boston: Printed by David Clapp & Son, 1882.)

Transactions of Medical Society of the State of West Vir-

ginia. 14th and 15th Annual Sessions, 1881–1882. 8vo. pp. 665–840. (Wheeling: Lewis Baker & Co., Printers, 1882.)

The Multum in Parvo Reference and Dose Book. By C. Henry Leonard, M. A., M. D. 34th thousand. 32mo., pp. 100. (Detroit: Ill. Med. Jour. Co. 1882.) Price cloth, 75 cts.; paper, 30 cents.

Index to Catalogue of the Library of Surgeon-General's Office, United States Army. Authors and Subjects. Vol. III., Cholecyanin-Dzondi. 4to., pp. 1020. (Washington: Government Printing Office.)

Unforgiven. By Anna C. Ellis. 8vo., pp. 258. (St. Louis: R. P. Studly & Co., 1882.)

Nitro-Glycerine as a Remedy for Angina Pectoris. By Wm. Murrell, M. D., M. R. C. P., 12mo. pp. 78. (Detroit: George S. Davis & Co., 1882.)

Stricture of the Rectum treated Electrolysis. By Robert, Newman, M. D. (Reprint from *New England Medical Monthly* September, 1882).

Announcement and Catalogue of the St. Louis College of Physicians and Surgeons. Session 1882–1883.

The Aseptic Treatment of Wounds, After Operations and Injuries. By W. T. Briggs, M. D. (Reprint from *Nashville Journal of Medicine and Surgery*, Aug. 1882.)

Some of the Simple Methods of Performing Hystro-Trachelorrhaphy. By O. E. Herrick, M. D. (Reprint from *Obstetric Gazette*, May, 1882).

Life of John M. Briggs, of Bowling Green, Ky. By W. K. Bowling, M. D. (Reprint from *Nashville Journal of Medicine and Surgery*, July, 1882.)

On the Nomeclature and Classification of Diseases of the Skin. By L. Duncan Bulkley M. D. (Reprinted from *Archives of Dermatology*, Oct. 1881.)

Ten Years' Experience in the Treatment of Stricture of the Urethra by Electrolysis. By Robert Newman, M. D. (Reprinted from the *Medical Record*, Aug. 12 and 19, 1882.

A Reply to Dr. Foster Pratt's Paper on the "Legal Responsibility of Surgeons for Ununited Fractures," read before the Michigan State Medical Society at the Annual Meeting in May, 1882. By Donald MacLean, M. D. (Reprinted from the July [1882] number of the *Physician and Surgeon*.)

Elephantiasis Arabum in the Samoan Islands. By Arthur C. Heffenger, M. D., U. S. N.

Quacks and Quackery in Missouri. By Dr. Willis P. King. Address of the President Missouri State Medical Association at its twenty-fifth Annual Meeting, May 16, 1882.)

On Photographing the Larynx. By Thomas R. French, M. D. (Reprinted from the *Archives of Laryngology.*)

Announcement of Quincy College of Medicine. The Medical Department of Chaddock College, 1882–83.

The Malignity of Syphilis with an Analysis of 430 Cases of the Disease. By L. Duncan Buckley, A. M. M. D. (Reprinted from the Transactions of the Medical Society of the State of New York, 1882.

Abortive Treatment of Mammary Abscesses and the Cure of Fissured Nipples by means of a new and Effectual Compress. By Geo. H. Noble, M. D. (Reprint from the *Atlanta Medical Register*, Oct. 1882.)

The Application of pressure in Diseases of the Uterus, Ovaries and Peri-Uterine Structures. By V. H. Taliaferro, M. D. (Reprinted from the *Atlanta Medical Register*, Sept., 1882.)

The Early Diagnosis of Chronic Bright's Disease. By T. A. McBride, M. D. 8vo., pp. 51. (A paper read before the New York Academy of Medicine, Nov. 3, 1881.)

Annual Announcement of the Toronto School of Medicine in affiliation with the University of Toronto, the University of Victoria College, and recognized by the several Colleges of Physicians and Surgeons in Great Britain. Session 1882-1883.

The Prescription of Proprietory Medicines for the Sick. Its Demoralizing Effects on the Medical Profession. By C. A. Lindlay, M. D. (Published under the auspices of the Connecticut Medical Society.)

News Items.

Article LXV.

This number of the Journal has been delayed in order to furnish our readers with a synopsis of the proceedings of the Tri-State Society.

We are under many obligations to Dr. Edw. Borck, for kindly sending us newspapers containing the proceedings of the Tri-State Society.

Drs. J. W. Holland and R. A. Cottell will be succeeded in the editorial management of the *Louisville Medical News*, by Drs. L. P. Yandell and L. S. McMurtry who are well known as medical writers.

The South-East Missouri Medical Association meets in Farmington, Mo., on the second Tuesday in Nov. 1882, and will continue in session two or three days.

The National Board of Health of Germany, spent last year, $4,000,000. The National Board of Health of the United States,—but comparisons are odious.

The Boston Public Library, including all its branches, now owns 404,221 volumes, having gained 13,239 volumes during the past year. It is contemplated erecting a new fire-proof building.

Dr. Julius Wise, who has so ably conducted the *Mississippi Valley Medical Monthly* will leave Memphis early in October, for the purpose of permanently locating in this city. He will be succeeded in the editorial management of the above mentioned journal by Dr. F. L. Sim, who has often contributed to its pages.

The *Arkansas Doctor* some time ago departed this life. It had a cachectic appearance from its birth, and the cause of its death was, we believe, inanition.

THE duty of the accoucher is patience. One should not interfere without a decided indication. But as soon as ever that indication is presented, it must be attended to without delay, and it must never be forgotten that, in midwifery, methods of interference which will save two beings are at the same time easy, but will become in a few hours futile, dangerous or impossible.—[*Pajot.*

A new medical publication has appeared in Guadalajara, Mexico, whose title is *Boletin de Ciencias Médicas*, it being the official organ of "La Fraternal" medical society. It appears twice a month, and is an octavo of sixteen pages, published in the Spanish language, at the rate of $1.25 per annum.

No. 1 of the *Modern Stenographic Journal* has been received. It is a monthly, of twelve pages, soon to be enlarged, devoted to phonography, published in Buffalo, N. Y., at $2.00 per year.

We have also received the Summer Number of the *London Graphic*, which is replete with colored prints. It is remarkable for the fine work displayed and this single edition cost more than £14,000 sterling, or $70,000. More than 160 tons of paper were consumed and the pages, if put end to end, would make an unbroken line from New York to London. 520,000 copies were printed and the number was out of print in a few days. The *Graphic* is the leading illustrated weekly of England, and makes friends wherever it is seen.

A CENTURY ago John Hunter divided all skin diseases into three classes: one of which is cured by mercury and the iodides, a second by sulphur, and a third class which the devil himself can't cure. Dr. L. P. Yandell, who quotes Hunter as above, is given credit for a much less complex classification than even this. He attributes all skin eruptions to malaria. Quinine is a specific for malaria, ergo, quinine is the remedy for all skin eruptions. Q. E. D.—[*Michigan Medical News.*

FACTORY LEGISLATION IN FRANCE.—Fresh powers for enforcing an old Act of 1848, regulating the duration of the day's work in factories, have been obtained from the Chamber of Deputies by the French government. This law, which fixed the maximum length of a day's work at twelve hours, had almost fallen into desuetude. The inspectors under the Act will be largely rein-

forced, and the condition of working children will receive special attention.

DR. RIEMBAULT, in a communication made to the Paris Academy of Medicine, states that he has made a series of researches with reference to "miner's anemia," and he believes that this affection is due to the presence of a worm of the filaria species, and not to that of the *Ankylostomum duodenale*, as asserted by M. Perroncito, of Turin.—[*Med. and Surg. Reporter.*

A MODIFICATION of the Esmarch method of producing artificial bloodlessness is reported as having been in vogue for some time in Australia, where, indeed, it is supposed to be the genuine Esmarch method. A stout ring of small size, made of rubber tubing, is rolled up the limb from the extremity, driving the blood before it. When the desired height has been reached a pad of cloth is introduced under the ring, over the artery, to produce additional compression, and the ring remains *in situ* during the operation.—[*Boston Medical and Surgical Journal.*

THE culture of cinchona in India began in the year 1858; especially cinchona succirubra, as also cinchona calisaya, were planted, while cinchona officinalis did not seem to prosper so well in that climate. There are now in India 4,677,720 China trees; 4,034,535 are cinchona rubra; 412, 695 cinchona calisaya; 199,893 a variety of the latter, and 30,592 other kinds. Last year 9296 pounds cortex were brought into commerce.

AN important literary and scientific discovery is announced from Salonica. The works of the celebrated physician, Galen, which were supposed to have been lost, have been discovered by M. Papageorges. They are in manuscript; date from the fifteenth century, and appear to have originally formed 248 sheets; 144 are in good condition, 24 are mutilated or worm-eaten, and 80 are missing.

DEATH OF PROFESSOR BALFOUR.—Universal regret will be experienced at the announcement that Mr. F. M. Balfour, the recently elected Professor of Morphology at Cambridge, met his death quite recently through falling over a precipice in Switzerland. Francis Maitland Balfour had made for himself a position among English men of science which was inferior to that

of no one in the whole field of biology. As a comparative anatomist he was famous throughout the world, and his magnificent work on Embryology is already a standard and classical treatise on the subject. The University of Cambridge sustains an irreparable loss by the sad mishap by which one of its brightest ornaments is removed from the ranks of the Royal Society. The mode by which Professor Balfour came to his end, too, will add to the sorrow that his decease will everywhere evoke.—[*Med. Rec.*

VACCINATION AND SMALL-POX.—As to the relative value of vaccination, we cite the following particulars, collected during the late epidemic of small-pox in Sydney: The total number of small-pox which occurred in Sydney and suburbs was 140. Of the first 38 cases no record was kept. Of the remaining 102 patients, 51 had been successfully vaccinated, and of these only seven succumbed to the disease, two patients had been unsuccessfully vaccinated (*i. e.*, the lymph did not take), both of whom died, and of the remaining 49 patients, who had never been vaccinnated, 15 died from the small-pox.—[*Australasian Med. Gaz.*

It is proposed to hold a National Medical and Sanitary Exhibition in 1883, and, in order to determine upon the best course to be pursued, a number of prominent physicians have issued circulars requesting boards of health, local, state and national, to appoint commissioners and alternates to hold a meeting together with commissioners appointed by the American Public Health Association at Indianapolis, Ind., on Wednesday, Oct., 18, 1882, at 9 A. M. The advantages to be derived from such an exhibition are manifold and it is altogether unnecessary to point them out, as the work done in the same direction by similar exhibitions is well known.

A new aspirant for the favor of the medical public is the *Indiana Medical Journal*, a well printed periodical of thirty-two pages, which was issued Sept. 5, 1882. The editor is Dr. Frank C. Ferguson and Dr. Jno. Oliver is the Clinical Reporter. It is published at Indianapolis, at two dollars per annum, and will appear twice a month.

We wish the venture all the success it deserves, and it ought to meet with a great deal in such a growing city as the one in which it is published.

SMALL-POX AND MILK CARRIERS.—A case has come to light in Poplar which illustrates in a forcible manner, a method by which small-pox may be spread through a community by the agency of milk. Four patients suffering from the disease were found in a dirty and deplorable condition in the house of a man who was employed in delivering milk. The disease had already prevailed for about five weeks, and the man, presumably in order that he might not be hindered from following his occupation, had avoided calling in any medical practitioner. During the whole of that period he had been in constant work, the fact of small-pox existing in his family being kept from his employer. Had a system of the compulsory notification of infectious diseases either by the occupier alone, or by the occupier and any medical practitioner, been in operation, the milkman could have been punished for having failed to comply with that provision. Whether he can be punished or not, under the Dairies, Cowsheds, and Milkshops' Order, 1879, is somewhat doubtful. The order provides for the punishment of any cowkeeper, dairyman, purveyer of milk, or occupier of a milkstore or milkshop, who has anything to do with the milking of cows, or the production, distribution, and storage of milk, if he have either suffered from or come into contact with infection. But, in this instance, it is not clear whether the man delivering the milk can be deemed as coming within the definitions quoted, and it is certain that his employer had no grounds for suspending him from work. The Sanitary Committee have referred the case to their clerk to see whether a prosecution can be sustained against the milk carier.—[*Lancet.*

CERTIFICATES of practice entitling the holders to practice medicine and surgery or midwifery in Illinois, have been issued to the following named practitioners, by the State Board of Health: E. L. M. Bristol, M. D., Chicago, Ill.; diploma of Jefferson Medical College, Philadelphia, Pa. Albert Beasley, M. D., Grand Tower, Ill.; diploma of Missouri Medical College, St. Louis, Mo. Julius H. Dietrick, M. D., Chicago; diploma of Swiss Medical council, Zurich, Switzerland. Albert B. DeLiplay, M. D., Chicago; diploma of Medical Department University of Michigan, of Ann Arbor, Mich. Wm. A. Johnston, M. D., Peoria; diploma of Medical Department University of Pennsylvania, Philadelphia, Pa. Charles H. McGorray, M. D., Chicago;

diploma of Medical Department University of Michican, Ann Arbor, Mich. A. J. McIntyre, M. D., Thompsonville, Ill; diploma of Medical Department University of Michigan, Ann Arbor, Mich. Patrick McCambridge, M. D., Springfield; diploma of Missouri Medical College, St. Louis, Mo. J. M. Patton, M. D., Oak Park, Ill.; diploma of Medical Department University of the City of New York. Isaac N. Ruddell, M. D., Charleston, Ill.; diploma of Medical Department University of Louisville, Ky. Thomas C. Rivera, M. D., Chicago; diploma of Medical Department University of Louisiana, New Orleans, La. Ernst P. Raab, M. D., Highland, Ill.; diploma of Medical Department University of Pennsylvania, Philadelphia, Pa. M. M. Robinson, M. D., Enfield, Ill.; diploma of Kentucky School of Medicine, Louisville, Ky. M. F. Spalding, M. D., Kimmswick, Mo.; diploma of St. Louis Medical College, St. Louis, Mo. Carl F. Sandberg, M. D., Chicago; diploma of Christiana University. Norway. Dr. H. Saguin, Amboy, Ill.; certificate of twenty-four years' practice. Dr. John A. Simmerman, Lane, Ill.; certificate of twenty-seven years' practice. Edward K. Tyler, M. D., Illinois City, Ill.; diploma of the Medical Department, Iowa State University. Frank A. Wyanet, M. D., Pullman, Ill.; diploma of the Medical Department University of Michigan, Ann Arbor, Mich. David A. White, M. D., Oak Grove, Ill.; diploma of the Ohio Medical College, Cincinnati, Ohio. Charles F. White, M. D., Wayne City, Ill; diploma of the Missouri Medical College, St. Louis, Mo. Minnie E. Buchner, midwife, Chicago, Ill.; certificate of the Missouri School of Midwifery. Elizabeth Brumer, midwife, Piopolis, Ill.; sixteen years practice. Elizabeth Koester, midwife, Plum Hill, Ill.; sixteen years' practice. Johanna Muelier, midwife, Chicago; certificate of examination. Karoline Novotney, midwife, Chicago; certificate of the University of Prague. Elizabeth Richardson, midwife, Bluff City, Ill.; sixteen years' practice.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—AUG., 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	74.0	**88.0**	18	66.5	81.5
2	70.0	82.0	19	65.5	84.0
3	68.0	80 5	20	66.5	85 0
4	68.0	83.0	21	66.0	87.5
5	68.0	83.0	22	71.0	88.0
6	71.0	87.0	23	72.5	84.5
7	71.0	85.0	24	72.0	85.0
8	71.5	83.5	25	71.0	82.0
9	63.5	76.0	26	70.5	84.0
10	**58.0**	73.0	27	68.0	81.0
11	59.0	78.0	28	70.5	80.0
12	62.5	81.5	29	70.5	81.5
13	65.0	85.0	30	69.0	76.0
14	70.0	87.5	31	66.5	77.0
15	69.5	80.0			
16	68.0	84.0	Means	68.5	82.4
17	66.0	81.0	Monthly Mean.	75.2	

Quantity of rain, 2.78 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM JULY 1, 1882, TO JULY 29, 1882, INCLUSIVE.

Small Pox..... 0	Childbirth..... 3	Convulsions & Trismus Neonatorum 64	Syphilis..... 1
Scarlatina..... 31	Inanition, Want of Breast Milk, etc. 21	Hydrocephalus and Tub. Meningitis.10	Apoplexy 11
Pyæmia & Septicæ 4	Alcoholism..... 13	Meningitis & Encephalitis 44	Dis. fem. gen. org.3
Erysipelas 2	Rheumat'm & Gout 1	Other Diseases of the Brain and Nervous System37	Surgical Operation 0
Diphtheria 15	Cancer and Malignant Tumor.... 16	Cirrhosis of Liver and Hepatitis...16	Deaths by Suicide 3
Membran's Croup. 1	Phthisis & Tuberculosis, Pulmon 79	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis'.....29	Deaths by Accid't 29
Whooping Cough. 25	Bronchitis.. 10	Bright's Disease and Nephritis...14	Deaths by Homicid 3
Ovarian tumor.... 0	Senility 22	Other Diseases of Urin ary Organs. 2	Congen Defor'ty 68
Measles 21	Pneumonia..... 26	Dis. locom Organs 4	Total Deaths from all Causes.... 829
Typhoid Fever.... 9	Heart Diseases.... 19	Unknown 0	Total Zymotic Diseases 433
Cerebro Spinal Fev 2	Other Diseases of Respir'y Organs.11		Total Constitutional Diseases.....177
Remittent, Intermittent, Typho-Malarial, Congestive & Simple	Heat Stroke..... 1		Total Local Diseases.....235
Contin'd Fevers,23	Marasmus—Tabes Mesenterica and Scrofula..... 59		Total Develop'tal Diseases 102
Puerperal Fevers.. 4	Other Const. Dis. 12		Deaths by Viol'ce35
Diarrhœal Diseas 252			
Other Zymotic Diseases 3			

CHAS. W. FRANCIS. *Health Commissioner.*

Original Contributions.

ARTICLE LXVI.

IODOFORM IN SURGERY. By D. PRINCE, M. D., Jacksonville, Ill

Though the use of iodoform in the treatment of venereal ulcers has been known for several years, its employment in general surgery is of recent date.

Moosetig-Moorhof has been using it in Vienna about four years with increasing zeal, but so recently has the knowledge of its properties been diffused among the profession that it was scarcely mentioned in the Medical Congress which met in London in August, 1881.

Dr. Esmarch * gave this method of its employment:

"1. A small iodoform cushion (the iodoform having been first dissolved in absolute alcohol) is secured by a bandage."

"2. Over this is placed a large pillow of jute and gauze, and over this a moistened gauze bandage firmly applied and over all an elastic compress."

This is a close imitation of the Lister dressing employing iodoform in place of carbolic acid.

The method worked out by Moorhof and now universally preferred is the simplest possible.

The crystals of iodoform are dusted into a fresh wound or applied to any other surface and it is found that union by the first intention is not hindered; that the presence of the crystals allays pain while they constitute the most certain antiseptic yet known.

The slowness of solubility has this advantage, that unless applied to a very large absorbing surface, the dissolved iodoform is not introduced into the system faster than it can be eliminated by the kidneys. The presence of iodoform upon sensitive surfaces is absolutely unirritating. If it is desired to apply the substance the most evenly, an ethereal solution may be applied without any other irritation than that of the ether which quickly evaporates. I have known for many years that ether itself is an application favorable to union by the first intention when applied to freshly cut surfaces. The interior of a wound having

* Transactions of the International Medical Congress, London, 1881, Vol. II, p. 364.

been protected against septic action by a sprinkling of iodoform; the exterior may be further protected by a layer of iodoform over which any dressing may be applied which is most convenient. No special material or preparation is necessary except the po session of the one thing needful—iodoform.

The case of an injury which occurred last May illustrates the hypodermic use of iodoform. Mr. Redding, a painter, fell from an elevation of ten feet, and suffered a compound dislocation of the ankle, with fracture of the fibula. It was seen fit to administer ether and reduce the dislocation and make an attempt to save the foot, the after-treatment of which was a perpetual bath, the foot being immersed in a solution of carbolic acid, one per cent., with the addition of an uncertain amount of salicylic acid. Everything seemed to be well until the morning of the fifth day, when the thermometer indicated that there had not been the usual morning fall, and a little erysipelas was discovered about the wound. On the following morning the case assumed a much more serious aspect. The erysipelas had reached the knee and gangrene had manifested itself in the ankle. During the forenoon the gangrene had extended half way up the leg and it was thought that the only thing that would offer any chance of saving life, would be an amputation of the thigh in the lower third, which was done on the afternoon of the sixth day subsequent to the accident.

After removal and on examination of the inner surface of the external flap, it was seen that the œdema had extended into the subcutaneous and muscular tissue, and as much of this as possible was dissected away, and the stump was closed and dressed with iodoform. Between 4 P. M., the time of the operation, and 10 P. M., the temperature fell from 103° to 98,° but under the influence of alcoholic stimulants rallied, and at noon the next day reached 101° F. At this time it was discovered that the inner flap which had been found œdematous, had become attacked with gangrene, as was feared. Over an area of four square inches the skin was black and accumulating gases gave the peculiar, characteristic crepitation, which could be distinctly heard on pressing the part with the finger. The thought occurred at this moment to Dr. A. E. Prince, to try the effect of preserving the gangrenous tissue in iodoform by subcutaneous injection. Accordingly a drachm of iodoform was dissolved in a fluid ounce of ether, and with a hy-

podermic syringe, the gangrenous tissue was filled with the etherial solution of the drug, introduced through numerous punctures in the skin. The result was found satisfactory beyond expectation. Not only did the gangrene not extend any further, but the tissue which had already become black and fetid, in a few hours lost the gaseous crepitation, and conducted itself simply as an innocuous foreign body. It gradually shrank and was partly lost by absorption, and was partly separated by sloughing in the course of about ten days.

The employment of the bougie or pencils of iodoform in fistulous tracts furnishes a ready mode of introduction of the agent. The treatment is equally applicable whether on the one hand the opening exists in a recent wound in the track of a drainage tube or in a place where adhesion has failed, or on the other hand, the opening is a fistulous tract in an old wound or ulcer, or the passage for the discharge of pus from some deep cavity. The bougies, employed for the interior of the uterus or for the male urethra are suitable. They may be cut into short pieces if the fistulous opening is shallow.

It may be confidently expected that all ichorous or septic odor will be abolished without any irritating effect.

The possession of an antiseptic which can be applied without any special preparation, has been a desideratum which is now secured. Carbolic acid, salicylic acid, and boracic acid have not lost favor in consequence of a previous overpraise, but in consequence of the appearance upon the surgical field of a superior competitor.

To Lister whose labors have done so much for the advancement of knowledge in this field, no less praise is due in consequence of the introduction through other hands of an agent superior to carbolic acid. This latter will still hold its place for all circumstances in which a liquid antiseptic is desirable as in the cleansing of instruments, sponges, the hands of the surgeon and the cutaneous surfaces around an injury or a wound.

The last objection to the employment of antiseptics in surgery, *i. e.*, that they are troublesome, has been removed. The advocates of cleanliness as the exclusive precaution can now add to this negative condition, an agent of the greatest power in opposition to the rise of septic complications, without any more trouble than shaking over a lacerated or incised surface a pepper box filled with iodoform.

Article LXVII.

The Philosophical Relations of Heat to Disease. By Romaine J. Curtiss, M. D., Joliet, Ill.

[concluded.]

Now if an animal is crushed or killed the vital manifestations cease, and, similarly, if a clock is crushed or killed the time-measuring qualities cease to transform force in the manner which results in the manifestation of life or time-measuring, and both of these principles depart "to that bourne from which no traveler ever returns." Now if life was the principle which gave the animal or vegetable the power to transform food into heat and work, then time-measuring was the principle which did the same thing for the clock. The analogies of these two machines are startling in their nature, but true to life. If the machinery of either is disarranged, the manifestations of heat, work, life and time-measuring will all correspondingly vary, in definite proportion in each machine.

But there are relations of difference between clocks and animals, in the character of the force which goes into them and in the fact of formation of new material forms by animals. This difference does not hold good between animals and those machines which consume food composed of carbon and other elements raised to a position of structure, which is energy of position relating to chemical force, while clocks are subject to a force like that of the energy of position which a cloud has, and which is potential energy in relation to gravity.

Steam engines consume food, which is like the food of animals, and is potential energy in relation to chemical force, or complex combinations of carbon, oxygen, hydrogen, and, perhaps, nitrogen. A steam engine therefore, will produce heat, work, and formed materials by its resistance to the passage of force, or by its transforming power over force in the same sense in which animals have this transforming power.

3. The germ theory at the present day is so well established that every demonstration of research, inspired and edu-

cated by its teachings, gives farther verifications of special facts which support the general proposition. This is the micro-organism stage in the pathology and etiology of medicine. The humoral and solid pathologies of the grandfathers, and the cellular pathology of the fathers, are the stepping-stones by which scientific investigation has reached the solution of the problem of life, as it relates to the micro-organism of disease. Without the micro-organism there is no sufficient antecedent to either the morbid products of anatomical character, or to the heat of disease. The cellular pathology reached very near the true solution of the question when it endowed life to the cells of cancer, tubercle, and the cells of degeneration; but the analogies and antecedents here given by postulating that these cells have independent life and power of reproduction, is not sufficient to explain the morbid anatomy of disease, and cannot explain, at all, the production of the heat of fever. That this is true, is verified by the fact that in simple hypertrophy of any tissue or gland, or its growth, there is no obstruction of the vital forces which results in increased heat, while the proliferation of the cancer and tubercle cell results in the production of high temperature.

The *a posteriori* evidence is accumulating every day, and while the zymotic diseases or their etiology are given over to the micro-organism from evidence of this character, the microscope of discovery has found the bacilli of tubercle, lupus, and many of the other diseases which have an hereditary morbid anatomy, the cells of which, according to the cellular pathology, are transmitted by procreation.

It is as easy to believe, and no doubt as easy to prove, that the germ or micro-organism of tubercle is transmitted by the egg or germ in reproduction, as that the distinctive cell of tubercle is. In fact the researches of Pasteur in Pëbrine discovered the germs of this disease in the eggs of the silk worm.

The micro-organism of disease, being a living machine, must act and present the same relations to food, force, and products as other living things. The bacilli of tubercle and other morbid anatomical products are generally found occupying a position in the interior of the morbid anatomy which they build out of the tissues they have eaten. These morbid products have, as matter, undoubtedly passed through the bodies of the micro-organism,

and are as much a definite product of this form of life, as the soil is the product of the earth worm. The difference between these products is that those of the bacilli of tubercle are subject to the modification of the forces of the organism in which they exist, which makes them more definite in structure, like the gall nut and ergot, while the product of the earth worm is not so subject, but varies according to the food eaten.

Further evidence is afforded by the different character of tubercle in different species of animals as man, oxen, rabbits and monkeys, which all present differences in appearance and other characters, though the bacilli are the same in all, so far as can be discovered.

In diseases caused by the presence of micro-organisms in the body, the morbid anatomy is the formed material of the living animal, and the other phenomenon of sickness, the high temperature, or heat of disease, is caused by the presence of the organism, and its ravages, and its morbid products or formed materials.

4. As has been stated, the animal, vegetable, and other machines transform food into formed material, work, and heat and they all do this by virtue of their structure which resists the direction of force. Food force passing through an organism, animate or inanimate takes the direction of least resistance, as it does everywhere else. If light gets through a prism the direction of least resistance to light given by the prism is such that light is decomposed, and this specific resistance depends upon the structure of the prism. Similarly the character of work and formed material of any animal depends on its structure and, so far as known, the manifestation of life, or the difference between living and dead protoplasm, consists only in a different molecular arrangement in living and dead matter. If, now, the structure of any machine, or its function, is interfered with in a more or less definite manner, its food transforming power is changed. If the bearings of the "works" of a clock are oiled with turpentine there is at once a change—the time-measuring qualities are interfered with, the work is interfered with, but if the force is still applied, and the clock moves at all, the deficiency of work is made up by the increased production of heat. If this process continues, the clock will be worn out; it will cease to run; its brass, wood, steel, and paint will be reduced to

their original forms, its time-measuring "principle" will depart and it will be a dead clock.

Similarly with a steam engine. Some mysterious, subtle power, as immaterial or spiritual as the ghostly itch of Haneman, may get into the bearings, and interfere with the work of the engine. If the same force is fed, the machine, as it works less, develops more heat, and if this process continues, the heat destroys the machine. The engine may live longer if the heat can be radiated or abstracted by applications of cold water, but such treatment, it is obvious, is not of much avail unless something can stop the friction, or the antecedent of the friction.

The sick man whose blood is filled with the vibrios from the swamp, or the bacilli from the cess-pool, which consume its red corpuscles and give him malarial fever, or which eat his Peyer's patches and give him typhoid fever, or whose lungs or mesenteric glands are the territories in which the bacilli of Koch build their "houses not made with hands," is helpless, and in bed for the reason that transformation of potential food force, with him, into work is over at present, and his temperature is 105°, by the doctor's thermometer for the reason that his structure and food are going in the direction of heat instead of work. The bodily temperature and enfeebled bodily motions, are the exact equivalent of the waste of tissue and the food he takes during the continuation of this sickness. The forces of disease and life heave against each other like Titans at collar and elbow, and swaying to and fro, in a moving equilibrium, produce a rhythmical character in the fever. The fever of phthsis and typhoid describe a rhythm so characteristic of each that the thermometer is relied upon as a means of differential diagnosis. If this process continues, or is severe enough, the heat destroys the body and the life goes out, and we say he is dead.

The treatment of the animal machine is the same as is that of the engine and clock with increased friction, by abstraction of heat and by "building better than we know" in the administration of medicines, which empiricism says "change the vascular tonus," "unlock the secretions," "defibrinate the blood," produce "alterant" effects, "sedative," narcotic" "carminative," "cathartic," "diuretic," "expectorant," "stimulant," and "diaphoretic" effects; but which, all unknown to us, have taken the scalps of unnumbered micro-organisms of disease, and by so doing

have restored the structure of the human machine to its function of transforming the greater portion of its food into work and structure, instead of heat. These are the most general relations which heat bears to disease. Science rejects the agency of the supernatural in the phenomena of life and death. There is no such thing in science as special providence acting as a direct factor of life or death, any more than there is such a thing in reality as an "epidemic constitution" of the air as a factor in the etiology of diseases.

ARTICLE LXVIII.

ON THE USE OF SILK WORM GUT SUTURES. By J. H. McINTYRE, A. M., M. D., St. Louis.

During my stay in London in 1879, I had the pleasure of witnessing a number of operations, performed by Dr. Geo. Granville Bantock, not only in the Free Samaritan Hospital, but also in his private practice. These operations were chiefly ovariotomies and lacerations of the female perineum, in all of which he uses silk worm gut for sutures.

For the last three years I have used this article for sutures in nearly all my operations, and exclusively in all gynæcological operations. It is produced by taking the cocoons about the time they are ready to spin and steeping them in dilute acetic acid, when they become a soft pulpy mass which is then "drawn" like silver wire. It is hard, round, smooth and unirritating, possessing as great strength as the best No. 2, 3 or 4 Japanese twisted cable silk. It should be placed in water or in a one to forty carbolic acid solution, the day before it is intended to be used for if not thoroughly moistened, it is stiff and difficult to tie tightly. For several months past I have been in the habit of steeping it in a solution of

℞ Eucalyptol.....ʒj.
Alcohol.....ʒj.
Aqua dest.....ʒiv.

which makes it perfectly antiseptic.

The advantage of silk worm gut over silk wire, especially in operations for the relief of laceration of the cervix uteri and lacerations of the female perineum, is the ease with which it may be introduced, the long time that it may be allowed to remain and the safety of its removal.

I have no doubt but failures in operations on the cervix often arise from too early removal of the sutures, but I believe that oftener failures are produced by straining the line of union, even if the wound is not actually torn open on account of the difficulty of removing a metal suture, and that in the hands of those who are quite skillful in their introduction.

If this communication should serve to draw the attention of the profession to this suture, to the extent which its merits deserve, my object will have been accomplished.

Translations.

Article LXIX.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

The Cause of Goitre.—Mr. Jules Carret bases his observations upon statistics relating to the geological nature of the soil, to the altitude and disposition of the contaminated localities. He has determined a zone of maximum frequency of goitre which, in Savoy, is found in the southern parts at an altitude between 1,000 and 1,100 metres, and in the northern districts at a height between 400 and 500 metres.. This curve represents an isothermal line of the soil.

The author has found unobserved relations between the mean height, the frequency of goitre aud the mean temperature. He feels convinced that goitre is caused by a microbion which lives in the soil, finds its way in the water that is drunk, and whose action is only to be feared at certain seasons of the year. The prophylaxis consists in using nothing but boiled water or such as has been accumulated in cisterns prior to the infectious epoch.—[*Progrès Médical.*

Interstitial Injections in Epithelioma.—M. Dupluy first calls attention to the frequency of cancer and then to the first trials made of this method of treatment, by Barclay and Broadbent. The author believes that the want of efficacy of the interstitial injections depends upon the fact that their action is too much limited to the neoplasm to be destroyed, or at least, does not extend into the peripheral tissues except in an uncertain manner and one which it is impossible to regulate. It is essential in using this method, to act not only upon the whole neoplasm but also upon what might be called the "generating zone." To attain this end, the best method consists in making

injections of concentrated acetic acid, not in the tumor itself, but at its periphery, so as to surround it by a series of injections, whose points are supposed to meet, thus representing a superficial cone, whose apex is beneath the tumor. After a number of injections, varying with the size of the tumor, there will be obtained a complete sloughing and elimination and there will be almost a certainty of having touched *in situ* all the elements that may be susceptible of proliferation and the acetic acid will have been employed as an eliminntor and modifier. These injections are extremely painful; but the pain is not of long duration.—[*Ibid.*

ALBUMINURIA IN PHTHSIS.—Dr. Cailleret in a well written thesis upon this subject arrives at the following conclusions:

1. Albuminuria in the tuberculous is found in about one-sixteenth of the cases according to the different statistics given.

2. Albuminuria is always a serious complication of phthisis; it may be transient or permanent.

3. Transient albuminuria in phthisis like in all consumptive diseases is a dyscrasic albuminuria connected with a renal congestion; when permanent it is dependent either on a tuberculous, epithelial or interstitial nephritis, or upon an amyloid degeneration of the kidneys.

4. Albuminuria does not seem to influence the progress of pulmonary phthisis or to hasten the evolution of tubercles.

5. The prognosis is always grave when there is a permanent albuminaria for there can be no hope of cicatrization of the pulmonary lesions.

6. Milk diet is the one which has given the best results and which ought to be applied together with astringents.—[*Paris Médical.*

NOXIOUSNESS OF AIR EXPIRED BY PHTHISICAL PATIENTS.—M. Giboux has made a series of experiments tending to demonstrate the development of tuberculosis by the respiration of air expired by phthisical persons. The experiment consisted in making rabbits respire, for a certain length of time each day, a certain amount of the air expired by phthisical persons having the disease in an advanced stage. Other rabbits were placed under the same condition with the exception of the vitiated air and were used as checks. At the end of three

months the first were phthisical and died; whilst the others presented no lesion whatever upon post-mortem examination. A counter-experiment seemed still more decisive; it consisted in making rabbits respire this vitiated air after having filtered it through carbolized cotton. In this case, the animals subjected to the experiment experienced nothing untoward.—[*Jour de Méd. et de Chir. Prat.*

ERGOT IN SOME BONE AFFECTIONS.—M. de Musgrave Clay draws the following conclusions in a paper on the above subject:

1. Ergot in powder in progressive doses of 40 to 75 centigrams, in a child six years old, gave in a case of white tumor of the elbow in the beginning, very happy results. And during the treatment pain diminished, bony suppuration ceased, motion became re-established and the general health improved.

2. It is permitted to us to suppose, and a recent fact seems to confirm it, that the action of ergot is not exclusively exerted in the domain of the osseous system.

3. The above case proves as had already been established by M. Dubove, that ergot in large doses may be administered with impunity for a long time, without having to fear any toxic accidents.—[*Gazette des Hôpitaux.*

NYSTAGMUS AND HEMERALOPIA IN MINERS.—M. Dransart in a study on the nystagmus of miners concludes as follows:

1. The nystagmus of miners is a paresis of the elevator organs of the eye (both muscles and nerves), produced by a fatigue of the elevators caused by the work in veins that are deep and in low galleries. This paresis is independent of a cerebral lesion of the nervous system as also in all defect in refraction.

2. General atony, anemia and want of light are secondary factors important but not essential to the production of the nystagmus of miners.

3. There exists in miners a hemeralopia intimately connected with nystagmus, but which may exist independently of that affection.

4. The nystagmus of miners is a curable affection. It cannot and ought not to be considered as a cause of exemption from military service.—[*Ibid.*

ALCOHOLIC GASTRO-ENTERITIS.—M. Leudet in a memoir on the forms assumed by this affection in different classes of society arrives at the following conclusions:

1. Studied in the diverse classes of society, alcoholic gastro-enteritis presents peculiar symptoms.

2. The lesions and the morbid symptoms may be met with simultaneously in the stomach and intestine this being a true gastro-enteritis. At other times the lesions strike more particularly the stomach or intestine.

3. The quality of the alcohol absorbed seems to contribute less to the pathology of the different accidents than the manner of ingesting the alcohol; the principal proof is drawn from the nature of the accidents observed in wholesale liquor dealers and the proprietors of liquor houses, frequented by the working classes.

4. Continuity of ingestion of alcoholics, in a relatively moderate quantity is the mode of absorption of the men of the middle class.

5. The working-man adds to this habit of consuming alcoholics that of momentarily exaggerating and to a considerable degree, the quantity of liquor drunk.

6. The form of gastro-enteritis, of gastritis or enteritis most peculiar to men of the middle class is the catarrhal, whose duration may be for several years.

7. The form of gastro-enteritis which is acute, sub-acute or chronic is most common among the working classes.

8. Ulcer of the stomach, common in working-men, also exists among those of the middle class but affects in them a chronic course.

9. Nervous intellectual troubles are habitual in both classes of patients.

10. Hepatites and alterations in the vascular system are relatively more frequent and more slow in the alcoholics of the easy class.—[*Ibid.*

LESIONS OF THE NERVOUS SYSTEM IN MYXŒDEMA.—M. Henri Henrot made an interesting communication lately in which he states that the clinical history of myxœdema is beginning to be known thanks to the work of Gull, 1873 and 1877, Charcot, 1880 and Ridel-Jaillard, 1881. M. Henrot published in France, Feb.

7, 1877, the first observation of a case absolutely typical, under the name of general progressive hypertrophy.

The anatomical history of the disease has not yet been made, the results but of three post-mortem examinations having been as yet published. Myxœdema or general, progressive mucoid hypertrophy is characterized, 1. by a mucoid œdema of the cellular subcutaneous and sub-mucuous tissue; 2. by a mucoid hypertrophy of the upper and lower limbs, of the lower jaw, of the tongue, of the thyroid body, of the lymphatic glands, of the liver, spleen, kidneys, bones, great sympathetic, pituitary body and pineal glands; 3. by atrophy of the heart, of the blood-vessels, of the muscular system of the life of relation, and of that part of the nervous centers which presides over the phenomena of intelligence and of the special senses; 4. by a profound anemia, giving to the skin a waxy appearance, without lencocythemia. In one word, the vegetative centers assume an absolute preponderance over the centers of the life of relation.

The lesion, which produces this general mucoid degeneration of the connective tissue, has its seat in the hypophysaic apparatus, formed at one and the same time by a blood vascular gland and by the superior anastamosis of the two cords of the great sympathetic. According to Owen this apparatus is very much developed in the embryonic state in animals which like fishes, normally produce a great deal of mucoid matter.

In conclusion: the affection described under the name of myxœdema or pachydermic cachexia seems to be essentially a return of the subcutaneous, submucous and general interstitial connective tissue to the embryonic state, under the influence of the hypertrophy of the vegetative centers and particularly of the great sympathetic and the sanguino-vascular glands especially annexed to it it, such as the pituitary body and pineal gland.—[*Ibid.*

LESIONS OF THE TEETH IN LOCOMOTOR ATAXY.—M. Chas. David in a memoir states that he has observed a case of peculiar alteration of the teeth in the course of locomotor ataxy. The alterations consisted in a rapid mortification (eight months) of the anterior part of the crown of nearly all of the teeth. The altered substance had taken on the consistence of soft wood and a *red* discoloration; the enamel still existed and was polished but had lost its hardness.

Under these parts the pulp had produced a new layer of secondary dentine. The pulp cavity was filled up in most of the anterior teeth and everywhere the bulb was atrophied. In their objective characters, course, etc., these alterations do not resemble caries in the least, but seem to have for cause the general condition of the patient; we connect them with trophic troubles determined by the lesion of the medulla. These lesions seem analogous to those which have already been observed in connection with the nails in the course of ataxy. This would seem to establish a pathological relationship between organs already related by a common epithelial origin.

Locally, the alterations recognize as immediate cause a functional trouble or a lesion of the dental pulp itself which reflects the state of the anterior pillars. Is not the atrophy which we have here related comparable to that which is observed, under similar circumstances, in connection with the eye?

The case we have reported and these different considerations would lead us once more to attribute to the dental pulp its true physiological significance, that of a *sensory organ*.—[*France Médicale.*

TRANSFUSION.—M. Verneuil thinks that the transfusion of blood is a difficult, dangerous and useless operation. The blood only acts as a stimulant and it is better to employ ether in hypodermic injections; this method is very efficacious and has not the disadvantages connected with transfusion. He admits the successes attributed to transfusion, but does not believe that the exciting agent need necessarily be blood.—[*Ibid.*

Proceedings of Medical Societies.

Article LXX.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, Sept. 16th, 1882.

Address. By the President, William Dickinson, M. D.

Gentlemem of the St. Louis Medical Society:—Upon the resumption of these meetings, I beg to express cordial greetings to all, and with them to hope that we now convene, moved by intentions falling but little short of deliberate resolutions of regular attendance and renewed purpose to contribute each his quota, to ensure the interest and profit of these sessions. Let me exhort each member to feel a *personal* responsibility and the pressure of a *personal* duty to bring hither of his weekly experience and observation. Let each one feel that this is *his* society, in no less degree than that of those who chance to bear temporarily the responsibilities of office. Should these meetings abound in interest, this happy result will then be due to your fidelity. Should they fail in this, this result must alike be in consequence of inadequate effort. A few of us, in your partiality, you have constituted for the time being, your agents; we therefore, must act as we are acted upon, and strive faithfully to do our bidding.

This society in the past, has achieved an honorable history. Let us strive, each in his sphere and degree to add to its record largely of medical worth, and transmit it thus enriched to those who shall succeed us. In this way alone shall we sustain the reputation of the society, coming down to us through the ordeal of varied vicissitudes experienced during a period now embracing nearly a half century. We readily pardon in one, the weakness that boasts of name and descent, provided he himself be but a worthy representative. It may be venial to consider our medical lineage; of this we may well be proud. Look at the catalogue of names of those, who from time to time have composed this society. They are those loved and honored while

living, and their memory is enshrined in grateful hearts, while their achievements are inscribed on the enduring records of fame. By these, discoveries in physiology and physics have been made, the knowledge of which, transcending the confines of the Mississippi Valley, have reached the remotest regions wherever the mysteries of digestion are rehearsed, or the correlation of the vital and physical forces is expounded. Accident may have favored the spirit of investigation of Beaumont, or a peculiar cast of mind determined the cogitation of Watters; universal science, none the less owes them a great debt of gratitude.

Surgery has been worthily sustained and illustrated by McDowell, Pope and Hodgen—alas! so recently taken from our midst—as well as others still with us, whom 'twere invidious to mention by name. Others, some dead, some living, have contributed much in elevating gynæcology to the rank of a specialty in medicine and science. Others have distinguished themselves in the domain of medicine, general and physical. And not a few have entered the arena of authorship. But these have not, singly or altogether, compassed the scope and range of medical science; they have but added their contributions to the rising structure, and from the vantage-ground thus gained, we can obtain a wider horrizon than they enjoyed. The *terra incognita* is still open and invites to grander achievements than they accomplished; in it honors more excellent than theirs are yet to be won. If the pleura, formerly held to be quick to resent the least invasion, may with impunity be freely opened; if the uterus, the domicile of all initial animal life, may be removed; if large portions of the intestinal tube may be excised without involving life; if gastrectomy, the latest agony of conservative surgery, may be performed, and human life thereby be prolonged, what benificence from its ministrations may not be anticipated in its application to pneumonic or hepatic disease. It may yet be demonstrated that diseased portions of the lungs or the liver, under some circumstances, may be excised, not only without the sacrifice of life, but the employment of this procedure result in its salvation. In this regard, experiments already made attest the practicability of excision of considerable portions of the lungs of some of the lower animals, and in some instances without compromise of life. To what extreme of daring, now deemed wholly unwarranted, may not surgery be carried and still be proved to be salutary.

The genius of discovery is everywhere and in every department vigilant and active; we live at the time when all intellectual forces, whetted to an unwonted acumen, are more inquisitive and energetic than ever before.

The votaries of medical science too, are on the alert; men and appliances appear with a spontaneity and number surpassing that of the children of Deucalion and Pyrrha, inspired with the spirit of research and untiring purpose to wrest something from the great unknown. In the progress of human knowledge, the *ultima thule* of fifty years ago is left far behind. The history of the past, the mighty activities and demands of the present, foreshadow a general and rigid sifting, a calling to judgment of much now regarded as orthodox and stable, and portend such a readjustment of the residue as shall constitute a new dispensation or a new apocalypse. But I must not longer indulge in prophecy, but address myself to the realities of the present.

Much of the interest attending former meetings of the society, all will cheerfully accord to the efforts of the Executive Committee, in extending, as well as to the members in accepting invitation to present papers. Still if any member can suggest measure, scheme or mode to procedure more effectual in promoting the objects of the society, the committee, I doubt not, will receive such suggestion with grateful acknowledgement and give them practical development.

The Radical Treatment of Deep Strictures of the Urethra. By W. Hutson Ford, M. D.

Mr. President and gentlemen of the society, I have not prepared a paper upon this subject, but must solicit the attention of the society to a few remarks concerning the treatment of strictures of the deep urethra. This subject has been very much discussed of late years; it is still *sub judice* to some extent, and is undoubtedly a matter of very grave interest, not alone as regards its difficulties, but also in the fact that deep strictures of varying grades are far commoner than is imagined. A stricture, that is a stenosis of the urethra, we know may be traumatic, congenital or acquired. Now, how should we define the word *stricture?* In the ordinary acceptation of the word it is such a diminution of the caliber of the urethra as will prevent the free flow of urine. This definition is inadequate, for a stricture should not be defined merely from the hydraulic point of view

although every form and grade of stricture does obstruct the flow of urine to a greater or less extent. Some very injurious and most distressing strictures are of such wide caliber as not very materially to diminish the size of the stream of urine, and assume importance in virtue of the local and especially general troubles with which they are associated. With strictures of this kind, spasm, urethrismus, especially in the fixed urethra, is nearly always associated, and of course the passage of urine is impeded, though a large sound or bulbous bougie can readily pass. In a case like this the existence of a stricture would be wholly denied, unless the influence of reflex action be acknowledged. Only one of the effects of the stenosis is obstruction to the passage of urine from the bladder. The ischury of stricture has been dwelt upon before the effects of spasm were admitted, in fact, until within the last twenty or twenty-five years. According to the older French doctrines a caliber of twenty-one of the French scale (I never speak of any other scale) is quite sufficient for the flow of urine from the bladder. Such a notion is not entertained now; a patient may pass water through a urethra of 21 caliber—less in size than a common lead pencil, but his stricture troubles will continue or surely recur. I do not wish to enter into a discussion as to the proper size of the urethra, at present, a much smaller one than even 21 will allow the passage of urine. I have seen a man urinate perfectly from a urethra about as large as No. 8—hardly much bigger than the lead of a pencil, and go on doing so for years and have no very grave symptoms, though of course laying up for himself certain wrath to come. For a long time there may not be more trouble of the bladder, or other symptoms, than would suffice to put the scientific medical man on his guard who may be watching the cases. In the same way, a child, or even an adult may go for a long time with a stone in the bladder without its presence being suspected. Twenty-one, then, was formerly assumed in the nugatory effort to fix a definite standard, as the size of the urethra at which the bladder does not suffer. Bladder trouble however, is by no means the first nor the chief of all the troubles that result from the stricture. The diminution of the caliber of the canal, however, slight it may be, necessarily entails disturbance in the urinary passages of which the patient is not conscious—the bladder contracts without his knowledge and the urine is forced more or less violently against the margin of

a contraction and by irritating and dilating the urethra just behind the stenosed ring, sets up inflammation which grows worse and worse and spreads backwards through the deep urethra to the neck of the bladder. It need not go so far as the kidneys; it is especially tight strictures which involve these organs in the course of time. Where the urine has a tolerably easy exit the kidneys are very seldom affected; they are not in the line of trouble. Where, however, the stricture is small and of long standing, the difficulty of expelling the urine will ultimately cause reflex hypertrophy of the bladder—a thickening of its walls with dilatation of the ureters and of the pelves of the kidneys, so interfering with the true renal functions. All old cases of stricture, whether of large or small caliber are characterized by deep seated urethral inflammation, and the urethra readily bleeds under the touch of the investigating instrument—the parts are excessively irritated, and this irritation radiates to every part of the economy, influencing it in a reflex way and affecting almost every organ. There are pains in the back and loins, deranged appetite, confusion of thought, sleeplessness, restlessness, unsteadiness of gait and despondency, and the mind is preyed upon so that the individual loses all capacity for business. Nutrition fails, the patient is lean, worn, and emaciated, he has taken all kinds of medicine, and has been to all the springs for his trouble, and has only got worse. On examining him at last we find anterior contractions more or less, but especially a deep stricture which may not be very tight, at or near the bulb. All anterior contractions must be divided, they cannot be fully dilated. Strictures also of the meatus must be cut. How, now, are we to treat these cases, by section or by dilatation, or by a mixed method? I have no intention, to-night, of speaking about strictures anterior to the perineum, time will not permit; I only desire to say a word or two about the surgical methods involved in the treatment of strictures in the neighborhood of the bulb of the corpus spongiosum.

We all know perfectly well that strictures in the pensile portion of the urethra are commonly cut, they refuse to be dilated and must be cut. Of course, traumatic strictures must be cut, it is folly to attempt to dilate them. But these strictures at the bulb or in the perineal region which are hardly twenty-one or below twenty-one, require far more careful consideration. The

profession is not decided upon what is to be done. A good many men divide them inadequately, and a good many do not divide them at all; a great many have tried a section once and have been glad to let such cases alone forever after—they dilate them in a careful manner, and if dilatation fails the patient goes to some one else. This is the usual history of these cases. Now if we meet with a stricture ten, eight or nine in caliber or even filiform, seated in the perineal portion of the urethra, with distinct and more or less urgent symptoms which have been borne as long as possible and the patient comes for relief what can we do for him? Suppose the contraction is in the perineal portion close to the bulb. If the stricture is very small we cannot as yet know whether there is any stricture at the bulbo-membranous junction or not. We know there is a beginning of trouble due both to the inflammation of the urethra behind the stricture, and also to difficulty in the expulsion of the urine, and that both the direct and reflex symptoms demand relief. We cannot cure such strictures by dilatation, for we cannot dilate them up to the full caliber of the urethra; this is absolutely impossible. I speak after a great deal of experience upon this subject. We may employ the ordinary method of intermittent dilatation with conical sounds, or we may dilate such a stricture up to 24 or 26 by the method of continuous dilatation, which consists in tying in a small instrument at first and allowing it to remain twenty-four hours, and then employing a little larger instrument, and then a little larger one again, but the stricture will soon relapse and we will find that the patient is not cured, although he duly passes a 26 conical sound afterwards. He goes on for years suffering in the same way, not always so badly, perhaps, as before, but with the same sleeplessness, the same nervousness and bladder trouble, and if he happens to have a bilious attack, as it is called, he experiences an exacerbation of all his troubles. He has pain in the back, is troubled with sleeplessness, he wakes lethargically in the morning, and goes to sleep late at night. He finds it difficult to attend to his business. He is liable to such exacerbations two or three times a year. Any attempt to pass a larger sound than the one he is accustomed to causes irritation. Such are the results of attempting to *cure* cases of tight stricture by dilatation; it is not possible; the only way to deal with them radically and thoroughly is by division; we may palliate such strictures, but we can

never thoroughly cure them otherwise. The patient, however may be content wiih a certain amount of alleviation of his symptoms, and may prefer to pass his water in a stream half as large as it ought to be, but his disease is only alleviated for a time, perhaps for a considerable period of time, but art has by no means done all for him that it is capable of doing.

Upon the important subject of the diagnosis of strictures at the bulb, I would remark that a large number of such strictures are mostly spasmodic, and nearly all—all I think in cases of long standing, are of mixed character, *i. e.* they are in part spasmodic and partly of new-formed material. In many cases the contraction is almost wholly spasmodic and is of reflex origin. There is a large class of cases in which we find that a small meatus has acted as a stricture, giving rise to inflammation of the urethra just behind it for a couple of inches; the inflammation may indeed have extended to the deep urethra. We then find the whole urethra contracted and exceedingly irritable and painful, the patient cannot bear the touch of an instrument; his urine scalds him almost always, and with the endoscope and bulbous sound we recognize the existence of granular patches or contractions more or less dense and callous, sometimes almost horny, according to their age, in two or three places between the end of the penis and the bulb itself. The presence of these irregularities, deformities and contractions is almost certainly accompanied by a very considerable degree of urethrismus at the bulb, the muscles surrounding the membranous urethra, and the muscular fibres of the urethra itself contracting reflexively under the influence of the irritation which has its seat in the anterior parts of the canal. Now this coutraction of the deep urethra, though at first purely spasmodic, finishes by becoming truly organic, and the urethra beyond it, towards the bladder, begins to be affected as soon as the contraction is permanent, whether it be primarily spasmodic or not. For during micturition the urine beats against the contracted portion, distends the deep urethra forcibly, opens up the mouths of the follicles, and remains in them to ferment and kindle inflammation. This inflammation soon involves the contracted part and by infiltration transforms it into a true organic stricture, so that in the history of these cases, what was at first merely a spasmodic contraction becomes to a greater or less extent a true organic contraction in the course of time. No

doubt many strictures of the deep urethra and even of the bulbo membranous junction are primary, but the great majority originate in the way I have explained. After the stricture becomes permanent, its progressive diminution of caliber is only a question of time.

In order to ascertain the true nature and caliber of the deep contraction therefore it is necessary to enlarge the canal anteriorly and so abate the reflex influences of anterior inflammation upon the contractibility of the deep urethra. First divide the meatus if necessary and whatever strictures and contractions we may find in the course of the urethra as far as the perineum, guiding ourselves by the use of a bulbous bougie of as large a size as the urethra will readily admit. When we have done that, when the anterior portion of the canal has become accustomed to the conical steel sound and the irritating qualities of the urine have been reduced as much as possible, we may consider the question of what we shall do for the deep contraction. We may determine the caliber of the urethra if not very much deformed or contracted, by direct measurement. Here is an instrument of Otis intended to determine that point. (*Exhibiting Otis's Urethrometer.*) The measuring part or expansile bulb is incased in a little india rubber envelope which stretches. The part of the urethra which intervenes between the scrotum and the glans penis is supposed to be about the natural size of the canal, and this instrument is passed into it, and smoothly moved to and fro and screwed up very gradually as long as it moves with tolerable ease, and then the notation on the handle is observed. It is a very good instrument and its use is important in a large number of cases, but I have not found it possible to use it where the urethra is deformed or tender. Now when we have used this instrument and found what ought to be the size of the urethra in the particular individual whom we are treating—for it varies in every case,—we may proceed to dilate the deep contraction if this has been mostly urethrismic, or but slightly inflammatory. We do that by means of sounds. I do not propose to enter into any discussion as to the use of the sound alone in the treatment of deep strictures, time forbids. We use sounds that will not irritate the prostate. Here is a sound which has a different curve from the ordinary instrument. Its curve, instead of being quadrantal, represents an arc of only forty-five degrees. It is made just so long as to pass through the bulb without reaching the

prostate. There is no reason why we should worry the prostate every time we pass a sound into a deep stricture. This is Otis's *short-curved* sound. Its end is much shorter than is usual with the ordinary sound; of course it is conical.

In the diagnosis of these deep strictures, we use these little steel bulbs of varying sizes, having given the wire attached to them a suitable curvature. The wire is straightened when we wish to feel for contractions of the urethra anterior to the bulb. When using the bulbous bougie the forefinger of the left hand is passed into the rectum, and we learn much concerning the stricture by the sense of touch exerted thus in a sort of a conjoint manipulation. If there is a sudden bulge of the instrument, either forwards or backwards, we have good reason to suppose there is an organic stricture and we have to adopt more substantial measures than the use of the conical sound for overcoming it, except in very recent cases where there is also but slight contraction. I have said that the only radical treatment of these deep strictures where there is much deposit, is section. We have heard of section by internal urethrotomy a great deal of late years. There is no book, hardly any issue of a medical journal which does not treat of or detail cases of internal urethrotomy in the perineum or at the bulb where a tight stricture is opened up to eighteen, twenty-one or twenty-six of the French Scale, but this operation is done very rarely in the thorough way which I am considering to-night. If we study up the subject, and consult published tables we will find that comparatively few cases of exactly this kind are noted, few indeed of division of strictures in the perineum within an inch of the bulbo-membranous junction or at the junction, complete enough to re-establish the true caliber of the urethra at the affected point. This deep and thorough internal section is a grave operation, as much so as an amputation, at the least. It is an operation that sometimes kills. It has had its victims in this city, and everywhere else. Division may be accomplished not only by the knife but also by means of tearing with Holt's or Voillemier's dilator. I regard the method of tearing as a very bad one. It is liable to be attended with disastrous results. I am satisfied from personal experience that it is much better to use the knife and to refrain from the use of instruments for divulsion in the deep urethra. It is much better that we should cut than tear without knowing what we are tearing, what sort of a

wound we are making, or what the result of the laceration is going to be. But indeed the tearing process has been pretty generally abandoned. So that the measures become limited to external urethrotomy including subcutaneous urethrotomy and internal urethrotomy. Now is it possible to restore a urethra which has once been occluded by extensive deposits of new material to anything like its primitive condition? Is it possito give a man, who has a urethra which only admits a filiform bougie, a urethra which will allow him to pass a stream of water as large as this sound No. 34 and to allow him to do so for years—for the balance of his life? This is a difficult question to answer. I have seen it stated that it is impossible, but within my experience and that of many other surgeons, I know I can say it can be done. I can cite many cases of the kind, one particularly where the contraction was not however strictly filiform in which I operated in this city by internal urethrotomy. The caliber of the stricture was about a number 10 French, but the main peculiarity of the case was the excessive thickening around and along the urethra. At least three and a half inches of the man's urethra was affected and had been for a period of fifteen or twenty years. I operated in that case by internal urethrotomy and the patient has had little or no trouble since. I dilated the canal to 33 and to this day he passes a 28 at regular intervals. He has had no re-contraction except from 33 to 29. The patient was operated on some six or seven years ago. I also operated six years ago upon a gentleman who had a stricture with abscess of the prostate, by external urethrotomy the caliber of the stricture being hardly 6 or 7 French, probably number 2 English, and to this day he passes a 31 sound and and voids his urine naturally. Once a month he passes the sound as a matter of routine, but he has no occasion to consult me about his urinary organs. These are successes, and it is gratifying to be able to achieve them, to know that we can restore the parts to a condition approximating to their original one. Now if as much as this can be accomplished by section in these grave cases, the question arises is it better to divide the contraction externally, or by the internal method? When we operate externally the patient is a longer time in getting well. I do not know that his risks of life are any less or greater than by the internal method. By the external method the patient is kept on his back for a month or five weeks, and in all respects

he is exposed to the same dangers as in the internal operation. After the external operation the healing process is much more prolonged and a cicatrix is left in the perineum, often irregular, with a sort of sacculation of the urethra at the part operated upon, with almost absolute destruction of the bulb of the corpus spongiosum and the muscles which cover it. The external operation is often imperatively indicated, but its chief advantages, viz., thorough division, easy passage of urine afterwards, freedom from danger of urinary infiltration and pyæmia, and primary and secondary hæmorrhage may be also realized by peculiar treatment after internal urethrotomy. Certainly much will be gained if we can safely divide these strictures by the internal method. I have been making both kinds of section for eight or ten years and I find that I have made some progress in the matter. I have been so fortunate as never to lose a case after section of stricture by any method, or in any locality, though very nearly doing so in one case where pyæmia ensued.

Before proceeding to speak of operative methods I merely say, and it is an important point, that an immense amount of trouble is due in these cases to the underlying systemic condition. Preparatory treatment of the patient, is no where more important. This consideration has been too lightly passed over by writers upon the subject. In the first place, the urethra is in a state of chronic irritability in all these cases, and the mere contact of an instrument may precipitate a rigor and urethral fever. Still more apt is this to ensue upon an operation. This preternatural irritability of the urethra due to its chronically inflamed condition is maintained and enhanced by the abnormal acidity of the urine.

We must recollect that in all these cases a certain amount of gouty or rheumatic taint subsists which implies a highly acid state of the urine. The acidity alone is often the cause of chronic inflammation. Not only does the diathetic state I speak of render the urine unnaturally irritating, but it denotes at the same time a condition of the whole system which is favorable to the deposition of new material, to fibrotic inflammation. In this diathesis, inflammation is very apt to be chronic, and to cause induration and thickening of any parts involved, as of the valves of the heart, the synovial membranes, the capsule of Glisson, the stroma of the kidneys, etc. Stricture of the urethra is mostly seen in this diathesis, and the tendency of

urethral inflammation in such a condition towards chronicity with superabundant deposit, is only a local manifestation of a general systemic vice of nutrition. As the same condition persists after the stricture is formed, and the urethra is still further irritated by the establishment of deep inflammation, highly acid urine still continues to bathe the inflamed surfaces. The first indication is to rectify this state of things as much as possible. Now if we allow the patient to feed upon himself, if we stop his food, he subsists upon his own tissues and passes into the condition of a carnivorous animal, so that we only aggravate the difficulty. The urine becomes more acid than ever, uric acid becomes gradually more abundant in his blood. If we give him opiates after an operation, to relieve his pain we intensify the same trouble. To obviate these difficulties we must put him on the alkalies, administering bicarbonate of potash or soda for some days before an operation, and feed him on vegetables, diminishing his allowance of animal food; quinine alone is not enough.

So much by way of preparation, how in the next place are we to proceed to open up the urethra? Of course, we all know, we pass a guide and open the urethra upon it, or we operate upon it without a guide, or we operate subcutaneously. Whether we should prefer to cut from the outside or the inside depends upon a variety of considerations too numerous to speak of now. If we determine to operate internally, the stricture must be passable, *i. e.* it must be possible to get something by way of guide through it. Our first step therefore is to pass a whale-bone filiform bougie, and upon that either a *tunelled* grooved staff after Gouleys' plan or else the instrument I show you, which is Maisonneuve's Urethrotome. If we are going to operate in a case where the stricture is filiform or nearly so we are obliged to use this particular instrument, or perhaps Peters, which is very small and cuts from behind forwards. In several urethrotomes there is a little opening or bridge at the tip through which the filiform bougie is threaded after its successful passage, and we pass such instruments down through the stricture over the whalebone guide which has already been passed through it. This principle we owe to Gouley. Maisonneuve's instrument is very different, and is intended to cut as it goes down. There is a male screw upon its tip, and it is furnished with a few slender flexible bougies mounted at the ends with female screws to match. We begin

by insinuating one of these bougies through the stricture and having done so, we screw on the staff of the urethrotome and pass it also down through the stricture, while the *bougie conductrice* is pressed forward and coiled up in the bladder. When we have passed the staff properly through the stricture, we pass down one of the triangular knives belonging to it which as we see are blunted at their apex. The staff is curved somewhat, but the knife travels only on its straight portion. By its passage we divide the contracted parts only, the sound urethra is not cut. The largest blade makes an opening through a stricture only as large as the classic 21, which is large enough to allow the patient to pass his water so much more freely than before, but not by any means large enough to cause a permanent abatement or cure of the associated deep urethral inflammation. But having gained this much, we must proceed immediately to divide the stricture still further, for the opening is now large enough to admit the instrument I exhibit, viz., Otis' straight dilating urethrotome. I always cut on the floor, as Maisonneuve's urethrotome is arranged to do. In using this instrument of Otis, we must bear in mind the caliber of the urethra which we wish to re-establish, and at the bulb or near it, open the cut already made to two or three numbers beyond the desired caliber which has been ascertained as already described by direct measurement of a healthy part of the urethra. Knowing exactly how much more we wish to cut, we pass this instrument; a sliding knife is hidden in its end, and the cut is made as before on the floor of the urethra. To use this instrument safely and properly requires great care and experience. I know how difficult it is to manage, and I regard it as a very dangerous instrument in the hands of any one who is not perfectly familiar with it. In using this instrument we should work by successive turns of the screw. If we are working from 21 to 36 or 38 or more, we should go by steps of 5 or 6 numbers, the first movement should be from 21 to 26 to 27, and we then draw the knife through the stricture and immediately pass it back into concealment, and so on. Otherwise if we attempt to use the whole amount of dilatation at once we make the instrument a divulsor, and tear instead of cutting. Our object is to cut only and to cut truly and mesially upon the floor. The position of the instrument is controlled by the forefinger in the rectum. Operating thus by successive steps we do not tear the parts, but incise

them to a caliber some few numbers in excess of what we desire to realize eventually. After the operation we must expect a certain amount of contraction, which will be annular because the urethra is a muscular tube and any irritation of the walls will give rise to an annular contraction, and besides these, cicatricial tissue will contract more or less. We should always allow for this contraction when we divide the parts. As we may count on two or three numbers of contraction we must cut above the desired size to the same extent, and so save our distance perhaps in the long run. We must not attempt to divide strictures by withdrawing the dilated instrument, by doing so we may tear the urethra itself across, but we must press the thumb of the left hand upon the tip of the glans and manipulate the knife-blade as described, keeping the instrument stationary. The knife I use is blunted upon its apex like those of Maisonneuve's urethrotome, and cuts only when it comes in contact with a point of tension. Another knife with a sharp edge goes along with the instrument, but I seldom use it, as it is apt to cut too severely; its use requires the utmost caution.

There is no doubt that a vast amount of injury has been done with this instrument of Otis. It is certainly a dangerous piece of mechanism except in skillful hands. No urethrotome has been so fearfully abused in America as this, and there are many men who refuse to have anything to do with it. But is like every other surgical instrument, its utility depends upon the way we use it. Judiciously used it does most thorough work, indeed I regard it as the only instrument that we can depend upon in operating in the deep urethra.

Suppose now we have divided a deep stricture to the proper extent, are our troubles over? By no means; they are just about to begin. First comes the danger of hæmorrhage. We cut in to the bulb and there is danger of great bleeding—if we cut too widely there may be fearful hæmorrhage; how are we to avoid or control it? An instrument was devised many years ago for such a purpose; Otis has made an improvement upon it. A flat perineal pad of ebony is harnessed up against the perineum, and held by straps and buckles. Otis sometimes uses a crutch very much like an ordinary crutch, the handle being applied to the perineum, and the staff to the foot-board of the bed. He calls this his perineal crutch. I sometimes use it, or something like it in simpler cases. Constant pressure is then

maintained provided the patient is kept remorselessly on his back, and moderate degrees of hæmorrhage controlled. The crutch, however, is too liable to displacement and too much under the command of the patient to be depended upon. I rely in all these cases upon a perineal tourniquet which is an improvement of mine upon the one figured by Otis on his book on stricture, and which I have presented to this society on a former occasion. One of the primary indications after these operations, is to prevent regurgitant hæmorrhage into the bladder. The repeated loss of blood during micturition is bad enough, but blood may accumulate in the bladder, coagulate there, and cause the patient great torture for days, producing constant vesical tenesmus and very severe pain. The bladder sometimes becomes filled with blood, the urinary passages clogged by clots, and the urine can neither be voided nor withdrawn by the catheter. The operator is at his wit's end for not having prevented what he cannot rectify.

Another great danger that confronts us for the first two days or so is extravasation of urine. If the urine has already become ammoniacal before the operation it will be proper to wash out the bladder very gently if a small sized catheter can be introduced, but this cannot be done generally, both on account of the difficulties of catheterism and the irritability of the passages. All we can do, as I have already said, is to use alkalies and quinine with careful dieting by way of preparation for operating. The urine is improved somewhat, its acidity neutralized, and decomposition checked in it to some extent. It is not as irritating or as poisonous as it would have been, but still there is danger if it finds its way or is forced through the cut we have made and fails to come out again. Once extravasated, remaining in the tissues and soon fermenting there, its presence excites violent inflammation, with great œdema, and abscess, or diffuse suppuration, The products of pyogenic inflammation are absorbed into the economy, and a rigor announces the onset of pyæmia. Of course we may have rigors without pyæmia, but pyæmia will not be established without some degree of chill, and I do not believe it will appear unless urine has been extravasated. What we have to fear and to avert, is not merely the contact of fœtid urine with the cut surfaces, which may, perhaps, cause some grade of septicæmia, but the extravasation of such urine by way of the cut into the subjacent tissues. The consequent for-

mation of pus will lead by absorption to pyæmia just as it happens in the case of the uterus after labor. Septicæmia within the first four days, perhaps, after that time, as late as ten or twelve days afterward, *pyæmia*, if there is periurethral suppuration due to urinary extravasation. So that at all hazards and inconvenience, this extravasation of urine, even in the least degree must be prevented after these operations. With the double object in view of preventing hæmorrhage and also of preventing the possibility of urinary extravasation I apply the perineal tourniquet as soon as possible after the incision has been made, screw it up as tightly as the patient can bear comfortably, and leave it untouched for sixty hours. During this entire period I aspirate over the pubes as often as is necessary, not a drop of urine is allowed to enter the urethra, and the patient is forewarned that any attempt to urinate may cause hæmorrhage, pain far greater than aspiration ever occasions, and even abscess and pyæmia. The primary blood-clots of the incision must not be disturbed for two days at least. As I have said, this thick wide strap of the perineal tourniquet is fastened around the patient's pelvis and other straps are attached to the ebony pad to keep it in position in the perineum. This pad has a pronounced bulbous projection which must be so fixed as to press in front of the anus and to compress the deep urethra as well as the whole perineal region, and thus at one and the same time prevent the passage of urine from the bladder or the flowing of blood backwards into the bladder. The object of the bulbous projection is to isolate the cut parts. The straps are drawn tightly enough to accomplish this and yet not to be painful to the patient. If the patient gets along well for the first sixty hours after the operation he may be allowed with certain precautions to pass his water himself. He must urinate always with his knees tied together and in the *horizontal* posture. All danger is by no means over, and extravasation through the cut walls of the urethra may readily occur if the passage of urine through the penis be in any way obstructed, as by clots or swelling. Every time the patient wishes to urinate he must pass a large glass tube smooth at its ends and about nine inches long, as far as the bulb, but not through the deepest incision and he should roll over to the edge of the bed and keep the finger of his left hand gently compressing the parts just in front of the anus. The route being kept open in this way in

front of the incisions no tension or separation of the cut surfaces is possible and the urine gushes out in a great stream without causing any pain. If its extremity be depressed, the tube acts as a syphon and the urine is withdrawn still more readily.

We should now adopt some antiseptic measures in the treatment of the internal wound. The adaptation of antiseptic measures to the surgery of the urinary organs, is very difficult, but we are making progress in this respect. After having made water the patient is instructed to pass this long curved catheter-like syringe-nozzle whose size must be adapted to that of the urethra. The nozzle is acorn shaped, No. 24 in size, and perforated with holes upon its proximate aspect—that which looks toward us when it is *in situ*, so that fluid gently injected through it flows out by the meatus after washing out the deep urethra. This washing pipe is passed in without difficulty, and affords a great deal of satisfaction and comfort to the patient. The last portion of urine which always scalds the tender surfaces more or less, are washed out, the irritability of the urethra lessened, and of course the reflex influence of this irritation upon the whole system. This washing out of the urethra after every act of micturition I regard as very important, it tends to prevent anything like urethral fever. Although little is known of urethral fever there is no doubt that it is linked in some way to urethral irritation; and insomuch as it is due to this cause systematic and antiseptic washing out of the urethra will tend to prevent or alleviate it. So that I require the patient to pass the washing pipe after every act of micturition and to inject through it with a conical pointed syringe six or seven ounces of a solution of listerine, or some other bland antiseptic of that kind. The pipe must not be passed into the bladder or even into the prostate; its nozzle should be passed to, but not necessarily through, the bulbous portion of the urethra. I use a glass tube because I know of no other material that is so smooth and which causes so little irritation as glass, and I use it intermittingly, because I am opposed to tying in any kind of a tube or catheter after these operations. Indeed there is no necessity for doing so. The object in the use of the tube is to give free vent to the urine. It is for this reason that Mastin of Mobile sews up his perineal wounds and ties in a silver catheter after perineal section, but a similar intermittent use of the glass tube is better even there. One main advantage

claimed for external perineal urethrotomy over internal urethrotomy is that free vent is allowed to the urine and secretions and that there is but little chance for absorption and consequently less danger of pyæmia than after internal section, and indeed, according to the latest and most extensive statistics of W. Gregory of Paris, this operation is nearly twice as frequently fatal as the internal section. Pyæmia occurs as a sequel to urinary infiltration through the wound in both kinds of operation, and as a consequence of obstruction to the escape of urine. In an external section, the edges of the wound may partly unite by first intention, swelling with a high degree of inflammation, or a blood clot may obstruct the opening in the perineum, and urine may be thus extravasated in the deeper parts of the incision. Its decomposition will lead to a diffuse inflammation, or the pyogenic grade of inflammation in progress in the wound, may, in worse constitutions extend directly to the veins of the urethral wall and so inaugurate pyæmia. As I have already stated, the urine for a certain period of time must be withdrawn after the operation by aspiration over the pubes, so that the incised parts may be left perfectly quiet. The bowels having been cleared out just before the operation, with the precautions of preparatory and subsequent treatment, the patient in the great majority of cases will be able to get back to his business in fourteen or sixteen days after a deep internal urethrotomy, while after an external section he is usually confined to his bed for a month, and to the house some time longer. Nor are the results by any means as satisfactory by the external as by the internal method.

Internal urethrotomy is an operation which the operator must understand thoroughly. When practised as I have described with a view to a full restoration of the caliber of the deep urethra, it is full of dangers. I have not the least desire to speak lightly of any of these dangers. A section at the bulb is many times as grave as an operation only two inches or so anterior to the bulb. It is fully as grave as many amputations, while at the same time it is difficult to prevent septic trouble and suppuration. The measures I have been insisting on are the result of my endeavors to prevent urinary infiltration, sepsis and pyæmia. Hæmorrhage we control with the tourniquet. As far as my experience has gone, which is now by no means limited, I have found that by following the hints above

mentioned and the line of treatment detailed, we are quite able to mitigate the inevitable risks of these extensive deep sections so as to make the operation fully as safe a one, if not more so, than the extraction of a stone by lithotrity with evacuation in a good subject.

DR. POLLAK.—After these cases of Internal Urethrotomy is the cicatricial contraction very pronounced or not?

DR. FORD.—We must always allow for two or three numbers of subsequent contraction, but there is so much to be said upon this subject that I cannot possibly exhaust it to-night. Of course, after some days we pass a sound. We should wait quietly until the tenderness of the parts is abated and the patient is beginning to convalesce. I am never in a hurry about passing the sound. I generally pass one on the sixth or seventh day, about half as big as the one I wish to use finally. If I wish to use a 34 I begin with a 20. Then three or four days after that I use a little larger one, and so I continue to increase the size of the sound until I get up to the desired number. I think it a fearful blunder to pass the larger sizes as early as the third or fourth day, as their introduction is sure to tear the wound apart before the dangers of urinary infiltration are past, and so lead to severe hæmorrhage and very possibly to pyæmia. I say this because these accidents have happened to me, though my patients fortunately escaped the worst effects of my bad treatment. I know better now.

SATURDAY, Sept. 23, 1882.

Death of E. S. Anderson, M. D.

DR. MONTGOMERY moved the appointing of a committee to take action upon the death of Dr. Anderson.

REMARKS.

DR. MAUGHS.—I was very well acquainted with Dr. Anderson. I became acquainted with him shortly after my arival in St. Louis, at which time he was perhaps the most promising young physician in the city. The Doctor was a son of the late Rev. Dr. Anderson, of this city, and was educated and graduated at the St. Louis Medical College. After graduating he visited Europe, visiting London and Paris, perhaps. He was for a long time recording secretary of this society, and without any possible disrespect to anyone else, he was doubtless the most efficient secretary the society has ever had, writing out the minutes of the proceedings almost as minutely as a stenographer. He was for a number of years Professor of Anatomy at the Missouri Medical College, and at the time the Doctor held that position he probably had no superior for knowledge and ability in the West. He held the position with distinguished honor, resigning to accept a position at Quarantine Hospital. Since that time he has remained in the city, practicing his profession. His death is a shock to me as it is to most of the members of this society. Many of the members had not even heard of his illness. He died the night before last after a short illness, from gastritis and was buried to-day, so that the members of the society will not have an opportunity of attending his funeral. He was a warm hearted, genial gentleman, always honorable in his dealings with others. If he had any faults they were with himself, his relations to his fellow men were most honorable.

DR. MOORE.—I should feel that I was direlict in duty to the memory of Dr. Anderson if I did not say a word on this occasion. I knew him when he was a mere youth. He was a man of superior ability, and, as Dr. Maughs has just remarked, in the early part of his professional career, was, perhaps the most promising young physician in the city. I always sustained to him the

most kindly relations, as a brother practitioner of medicine and as a colleague in the institution with which I am connected. I regarded him as a man of ability, and a man of great conviviality of disposition and great generosity—he was really too much so.

DR. POLLAK.—I had the pleasure of knowing Dr. Anderson from the very beginning of his carreer here. I have known him a long time and I have always found him an exceedingly honorable gentleman. He soon identified himself with the profession by his connection with the college that then existed here under the auspices of Dr. Hammer, and nobody admired him more than Dr. Hammer. Nobody could get along with Dr. Hammer, nobody could agree with him but Dr. Anderson did. When I came from Europe and started my eye clinic, Dr. Anderson very kindly acted as my secretary and the record of the hospital shows how effectively he did his work. Dr. Anderson was a most honorable and valuable member of the profession.

Suggestions in Relation to Questions of Law that may be of Service to the Medical Practitioner. By Hon. Fred. Lederger-ber. [By Request.

The medical profession embraces or will embrace within its ranks the men who do now and will hereafter, among other subjects, study the physical and mental condition of mankind, to ascertain the causes, if it can be done, which render it possible, that in certain cases the most approved and searching legal examination apparently fails to elicit the truth from honest acting and appearing witnesses, that two equally honest, disinterested and conscientious witnesses, beholding the same transaction, will receive impressions of it through the organs of their senses, so varying that they will receive and detail them so radically and irreconciliably different upon the witness stand, that in the conception of the lay jurymen, one or the other has committed perjury. This is going to be a grand field for the student and searcher in the field of ethics and medicine.

This sphere will, however, not be filled, adequately studied nor analyzed, until some of our large-hearted and generous philanthropists donate fortunes towards its development. Then, when men are so placed pecuniarily, that they can devote a lifetime to its study; we may hope that your science will furnish a gradual and rational explanation of the causes which produce these

interesting phenomena. This feature of human testimony, in the various phases of human affairs and in courts, is one of the most fascinating and perplexing interludes that embarrass the path of the advocate and counselor in his professional career, on the one hand, and on the other, increase the great and intense interest and appreciation he entertains for the science of medicine and its disciples. He is aware that in some instances you can now, and in his opinion, at some future time, your profession will be able to solve and elucidate the physical and mental causes which condition and render intelligible the frequent clashing of the testimony of equally honest and intelligent persons upon apparently plain and simple facts.

For when we turn from this one inviting and exciting field of investigation which is now with so many others still open before you, to the labors and results of your profession in the past, we behold and wonder at the difficulties you have and are continually overcoming in the application of the various branches of medicine, and feel assured that all questions affecting the same will be solved and demonstrated.

In the past, all people attributed all physical and mental ailments to Divinity. It was a part of the faith of religion, that they were the results of Divine wrath, to punish or to test the faith of the sufferer, and thousands have been executed by the excited populace, because they attributed them to natural causes; removable by remedies administered by human agencies, without supernatural interference. In a certain degree this is still the belief or superstition, even among highly civilized people. When we consider, that among many civilized nations *in this century*, during epidemics, more faith is placed in Divine interference, than in medicine and surgery; that many religious people and even Christians firmly believe that physical and mental, in fact *all* afflictions are the direct acts of God; that for a long period of time the sorcerer was the only representative of your honorable profession, and with some people still is; that while the advocate has a judge, a disinterested person to preside over and finally decide all questions involved in his case, the facts or diagnosis settled by a jury; the medical practitioner—*one person*, combines the judge, jury, clerk and sheriff, is responsible for everything, with no tribunal to appeal to, or to vindicate him except his co-workers; we stand aghast and astounded at the progress you have made, the radical changes inaugurated and

brought about in regard to the influence of superhuman agency upon cause and effect, greater in fact, if not in theory, than any other set of men. With all this your science has kept step, still does and always will.

What an advantage the man who claimed to appease the wrath of the Creator, must have had over the doctor who proposes to give a simple laxative! How many Galileos have you furnished, and do you still produce?

Learned writers upon law agree that the first semblance of a contract known to have been made, was in the nature of one man selling himself, his wife, or a member of his family (including his tribe) to another, either directly at once, or to take effect if he did not perform a certain thing or undertaking by a given day. In the latter case, a crude mortgage or pledge; because he had nothing else to dispose of and desired to acquire other things. It may be here noticed, that while human slavery was the foundation from which contracts spring multiplied and built up our immense and diversified wealth and its concomittant civilization, we have just discarded it as the last relic of barbarism, and an attempt to enforce the original contract constitutes a crime. Indirectly it will always exist in some form. The pledging and mortgaging of property is the direct offspring of the first contract, arising as soon as man had something beside himself to dispose of.

Medicine and surgery could not have, and do not now maintain themselves against sorcerers and quacks, except through the law, because the law is the rule of conduct men made to govern, regulate and control their actions one against another for the benefit of all. The science of the law pertains to the conduct of people among themselves, in regard to all their worldly affairs; the science of medicine applies to their physical and mental condition. Both are inseparably interwoven in the well-being of mankind, yet radically different in their practice and application. The difficulties standing in the way of the advance in medicine and surgery were and still are much greater than those standing in the way of the enforcement of the reasonable laws, for the reasons above stated, and the fact that medicine cannot assert its full usefullness except under the fostering protection of the law, by recognizing and establishing it, is not disputed. Self-protection established the law.

The cradle of public education is the republic of Switzerland.

Notwithstanding this, it is reported from the Canton of Glarus, that in 1874 there were twenty-seven regular physicians practicing there against three quacks; in 1879, twenty-four regular physicians against eleven quacks; and in 1881, twenty-one regular physicians against twelve notorious quacks. Demonstrating that even there, a release of legal restraint, enables the quacks to gain ground, as against the disciple of medicine.

From these remarks it becomes apparent how necessary an understanding of the scope of the science of medicine and some of its practical principles are to the legal practitioner, in fact, to him they are indispensable.

When we consider, that after all a judge finally decides a lawyer's case; that he applies demonstrated facts under the direction of the judge to rules of law; that he is not from necessity the *intimus* of his client, beyond that case, nor of his weaknesses, nor of his family; that the medical practitioner necessarily must be, as the family and attending physician; must know of all the skeletons in the closets of all his patients; all their infirmities and ailments, physical and mental; that he cannot submit them to a disinterested judge; must act openly or ignore them all, whether just or unjust, or criminal; nothing to justify him but the result, the development of which he must observe and regulate as it were from a distance, the advantage of an understanding of some of the branches of law to a medical practitioner must be apparent, and the benificent use he can make of such knowledge to promote the interest of others, in certain cases is much greater, goes much deeper than any one except the doctor can approximate.

In response, therefore, to your highly flattering and appreciated invitation, for which I express to you my heart-felt thanks, I will attempt to touch upon a few subjects of the science of the law, which, in my humble judgement, may be of practical use to you, as the friend and confident of the most important and sacred subdivision of civil government—the family. Your relation to the family is more intimate than that of any other person, not a member of the same; more confidence is placed in what you say or do, or not say or do; your position and duty require that you know more concerning family affairs, than possibly you may wish to know, especially the female portion. They are also the most frequently duped and deceived as to their legal rights; next come infants and lunatics etc.

My remarks on these topics ought more properly be called a digest, this for the reason that I shall present nothing new to you, and must therefore be brief, as it is a very dry subject.

But before dwelling upon those topics I will briefly touch upon a subject that interests every professional man deeply, you particularly, slander of business and privileged communications.

1. Words of reproach are not actionable unless they concern the business carried on by the person against whom they are directed, or his occupation, and cause specific damage.

2. Or may probably tend to damage it or have a natural tendency to damage it, as: "D. is a much better lawyer than A.," "he is nowhere as a doctor, compared with G."

The reason of the rule is, that from the nature of the case, damages must necessarily ensue, and a person could be completely ruined in his business, by publication of slander before his proof of special damage could be completed.

On the other hand it may be here noticed, that where a person is unlawfully carrying on the practice of medicine, it is not actionable to call him a quack, an impostor, an unqualified person. Also charging a physician with incontinance is not actionable as damaging his business, because it has nothing to do with the practice of his profession unless it is charged that he used his position to bring it about.

3. To impute ignorance where learning and skill are required, dishonesty where honesty, immorality where morality are requisite.

It was said of D., a surgeon. "I wonder you have him to attend you. Do you know him? There have been many inquests had upon persons who have died because he attended them." "He killed the child by giving too much calomel." Of an attorney, "he discloses his clients' secrets."

4. The remarks must, however, not be confind to specific cases, a single transaction, as: "If Dr. C. had continued to treat her, she would have been in her grave before this time, his treatment of her was rascally."

Because it affected but that case, and could not affect reputation, and implied nothing more than unskillfulness in that case.

5. But must be general, or of such a nature as to necessarily injure his general reputation in his occupation, as: "Dr. L. killed my children, he gave them teaspoonful doses of calomel, they died, it killed them,"; did not live long after they took it, they

died right off the same day, actionable because it implied gross ignorance and unskillfulness.

PRIVILEGED COMMUNICATIONS.

The principle upon which these communications are protected from disclosure, applies to every attempt to give them in evidence or bring them into circulation without the assent of the party making them. It does not apply to what was done, nor when the object of the communication and advice was to break the law, in acts *malum in se*. The restrictions apply to both parties. The information must come to one of the parties as a professional man, not in an ordinary way or by accident and the payment or non-payment of a fee does not affect the privilege, nor that two persons state their grievances at the same time with a view to relief.

HUSBAND AND WIFE.—CONDONATION.—NECESSARIES.

If a wife, without cause, that is of her own fault, leaves her husband, or commits adultery, she can no longer represent him in the acquiring of necessaries or other things, so as to bind him.

But if he allows her to remain under his roof with his children, or do any acts amounting to forgiveness or condonation, his liability would revive, except that providing her with funds, through kindness, without intending to forgive, or lead the public to believe that he had forgiven or condoned, would not.

There are cases holding that if she has a great fortune in her own right, she cannot purchase on her husband's credit.

WRONGS.

A husband, by the common law, is liable for all tresspasses committed by his wife, and the wife is protected from criminal liability for offenses of inferior degree, committed in the presence of the husband.

The first upon the cardinal doctrine that coverture merges the existence of the wife in that of the husband, and that every legal wrong of her's is his act, that he coerces her. The second upon a presumption which the law raises upon the first, that the acts must be coerced by him, and it has been held sufficient evidence of this coercion, that he was near enough at hand for her to be under his control. On the other hand, it may be shown that the crime was committed on her own volition.

A husband, under the common law, was and in many States still is, liable for the debts of his wife, contracted before marriage. There are States in which the husband is no longer liable for the wife's wrongs, unless he participated in their commission.

MAINTENANCE.

Married women, when abandoned by their husbands, are entitled to support and maintenance out of his property, and courts will make and enforce orders to that effect; authorize her to sell real or personal property, which may have come to him by reason of the marriage; debtors of the husband to pay to her and take her receipt as a discharge. During her abandonment she is entitled to her own earnings and that of her minor children. She may, during such time, if he has left the State, claim any exemption he might have claimed. She is regarded as a fœmine sale, while her husband is confined in the penitentiary, and if his whereabouts are unknown. He cannot reduce her personal property to possession as against her, except by her written consent.

All property coming to the wife from any source, except a gift from her husband, is her separate estate and cannot be touched by his creditors, even if found in his possession, unless she consented in writing, to his use and reduction into his possession.

DIVORCE.—CAUSES IN MISSOURI.

1. Impotence.
2. A husband or wife living at the time of marriage.
3. Committing of adultery.
4. Absence without cause for one year.
5. Conviction of crime, before marriage, without the knowledge of the other at the time of marriage or conviction after marriage.
6. Habitual drunkenness for one year.
7. Cruel and barbarous treatment which endangers the life of the other.
8. The offering of such indignities as shall render his or her condition intolerable.
9. If the husband be a vagrant.
10. Where the woman was pregnant at the time of marriage,

by a man other than the husband, and the husband be ignorant of the fact at the time of marriage.

These offences must have been committed in the State, or completed within it, and the complaining party must have resided in Missouri one year before the bringing of the action. The complainant must make a solemn oath to the above facts. The complainant must show a good character before a decree is entered, and the guilty party will not be permitted to marry within five years unless this obstruction is removed by the court.

Permit me to call your attention to the 7th, and particularly the 8th cause. Thousands of women continually suffer indignities which render their condition more than intolerable, wretched, of which few, are aware except the family and attending physician. They are frequently of such a nature that it shocks the senses to even contemplate them. Also, to the fact, that if either party by his or her treatment, forces the other to leave him or her, the party inflicting the treatment is guilty of desertion, not the party leaving. During the pendency of a suit for divorce, the parties must reside separate and apart.

During the pendency of suits for divorce, at their adjudication and upon other occasions, questions arise as to the care and custody of children under age—under fourteen years of age. Under the common law rule, the custody of all children belonged to the father, yet where children were of tender years and the mother a person of good character and able to take care of them, courts usually awarded them to the mother. Where neither the father nor mother were qualified, a person of the same religion of the child was and is preferred.

The court, in this State may, during minority, award the children to any party, if the other party is unfit to take care of them, in a proceeding by a writ of *habeas corpus*.

ALIMONY.

1. When a divorced party remarries, she loses the alimony allowed her by the courts out of the estate or from her former husband, though there are rulings to the effect that such provision is for life.

2. Alimony and maintenance, and in some States an attorney's fee will be granted to the wife during the pendency of the suit.

CONDONATION.—ADULTERY.

When adultery has been condoned and the guilty party afterward makes new attempts to commit adultery, they, under the English law, revive the adultery, and in this country it is held that adultery may be revived by cruelty or other misconduct in violation of the marriage vow.

ADOPTED CHILDREN.

Children may be adopted by deed duly executed, acknowleged and recorded, and a married woman by joining in a deed, joins in the adoption; by this deed the relation of parent and child is created between the parties the same as between parents and their natural children. It has been held, however, that parents may so demean themselves towards parties raising and educating their children, to be estopped from claiming them from them, where no deed was made.

APPRENTICES.

Males may be bound out to the age of twenty-one, females to the time of their marriage, when under fourteen years of age, by the father or when he cannot act or is incompetent (has wilfully abandoned his family for six months without making suitable provisions for their support, or has become an habitual drunkard Stat. of Mo.) by their mother or legal guardian; if illegitimate, by their mother, or when none of the above persons exist, may bind themselves, with the approbation of the court and when over fourteen years, with its consent, by an indenture in writing, one part of which must be preserved for the use of the minor, to be left with the clerk of the court. The indenture must state the full name and age of the minor, that the minor shall receive a good common school education, and at the expiration of the term, receive a new bible, two suits of clothes worth $50.00 and $20.00 in money.

It is the duty of guardians and of probate and other courts, to look into the treatment of apprentices by their masters. The courts may relieve the masters or apprentices from the contract, and in case the master fails to perform the contract, the apprentice, his parents or guardians have an action against him.

INFANTS. CONTRACTS.—GUARDIANS.

At the age of fourteen any person can choose his or her own guardian and will be allowed to make such selection, if applied for or be notified to that effect.

Females become of age at eighteen and males at twenty-one; up to that time the process of the court is served upon them the same as upon adults; the courts, however, if the legal nonage of a person is brought to its notice, will either compel the legal guardian to represent the ward, or appoint a guardian during litigation.

When a minor is turned away by his parents or guardians or emancipated he is entitled to his own earnings as if he were of age.

A minor is liable for contracts for necessaries suitable to his condition in life, which his parents or guardians refuse to furnish him, but in very few other cases.

But a promise or contract made by an infant for a valuable consideration, if executed, must be revoked within a reasonable time after the person has arrived at majority or it will remain forever; this time is usually regulated by statute, and is generally two years. A promise to marry, made by an infant may be ratified, after becoming of age, by actions or words in the same manner and to the same effect, as other contracts.

A minor is responsible for his torts and trespasses and may be sued therefor. His parents or guardians, unless present and assenting thereto are not.

When a person is insane, the court will appoint a guardian to take care of and administer his estate, in substantially the same manner as if he were an infant. Such persons for the time being are suspended from all rights and nearly all responsibilities, unless represented by a guardian.

The same is the case with deaf or dumb or other disabled persons.

A guardian is the person who has charge of the person or the estate of his ward, or both. When he has charge of the estate he is sometimes called a curator. Administrators, guardians and curators of estates are trustees in the highest sense of the word, and are held to very strict and stringent account, even charging them, especially administrators, the highest rate of interest upon moneys in their hands, not suitably invested. Where this liability is not thoroughly enforced, it has escaped the vigilance

of the court, and the parties interested do not properly assert it. There is no excuse for not investigating all their acts, as their reports are public records open to the inspection of all during reasonable hours; and in the city of St. Louis in particular, our present probate judge takes especial pains to ascertain the inwardness of all such documents. At the same time this is a field where the cunning devices sometimes succeed in taking from the trusting and confiding ones, a part of their own, in spite of the court, because neither the sufferers nor their friends know the law, as above stated, and are studiously kept in ignorance of it.

A Case of Sciatica Promptly and Permanently Relieved by the Hypodermic Injection of Ice-cold Water. By S. Pollak, M. D.

The patient is advanced in years, has not been confined to bed by a day's sickness since 1849, is actively engaged in the practice of medicine. For the last ten or twelve years he had autumnal attacks of neuralgia in various form and locality, usually beginning with pleurodynia, then changing into lumbago and finally merging into sciatica. It never was of that severity as to unfit him for work, but sufficiently so to render locomotion very uncomfortable and painful; especially was the rising from a chair difficult, and effected only with the aid of the hand; but once up, and after making a few steps, no further inconvenience was experienced. The getting in and out of a buggy was not embarrassing. The duration of such an attack was from ten to fifteen days, when it gradually subsided. No cause can be assigned for these attacks except it be neuralgic influence. They were, however, occasionally provoked and aggravated by getting wet.

The usual routine treatment of neuropathic affections has been pursued here in which quinine occupied the front rank. Turkish bath, the cold pack, massage, electricity, Fowler's solution, hypodermic injection of morphine have been tried singly and in combination, with unsatisfactory result; the relief was only temporary and never entire. It usually subsided spontaneously, even when nothing was done.

This year the advent of the attack was anticipated nearly a month, without any assignable cause. The pain was more severe but not the disability. Having read in the *Lancet* and

other journals, of the salutary effect of *ice water subcutaneously* applied, I decided to make the experiment. Pravaz's small glass syringe, holding about ten drops, was filled with ice water and injected in the spot about one inch behind and below the trochanter. The effect was magical. With the withdrawal of the hypodermic needle, the pain vanished and *it has not returned since.*

Mr. President, this is not fiction, nor the declaration of a hysterical and deluded patient, for the patient stands before you and addresses you now. None could possibly be more astonished and agreeably surprised than I was. It was my first and only trial, and, as you see, the result was more than satisfactory. It was well that I experimented on myself; I should have listened to a like statement of a patient with a good deal of skepticism. But I was instantly and permanently relieved. I shall not attempt to account for it on physiological ground, nor explain the rationale. Let the fact suffice you. It may never recur again, but I should certainly resort to it if a like case is presented to me for treatment.

Dr. Green.—Did you inject in the region of the sciatic nerve.

Dr. Pollak.—Yes, sir.

Dr. Mulhall.—Did you insert it deeply or only superficially?

Dr. Pollak.—Pretty deeply.

Dr. Mulhall.—You didn't get to the nerve?

Dr. Pollak.—Most likely I did. I don't know. I injected it as usual.

Dr. Williams.—What is the modus operandi?

Dr. Pollak.—That I don't know.

Dr. Dickinson.—The society will remember that two years since acting upon the suggestion of Dr. Comegys, I reported a case in which I used a hypodermic injection of ether, half a drachm inserted within an inch, or an inch and a half of the great trochanter and with immediate beneficial results. The sciatica has not returned in that patient, at least it had not several years ago.

Dr. Hill.—Is its use attended with much pain?

Dr. Dickinson.—In this instance it was attended with some little pain, but by no means as much as I expected.

DR. ATWOOD.—I wish to state that I have tried the same treatment and failed. I have used an injection of sulphuric ether and did not succeed in curing this trouble. I could make a temporary impression, but could not cure it.

DR. HILL.—I would like to state that during the past summer I have had several severe cases of facial neurrlgia extending down over the right shoulder, and after exhausting the entire list of remedies as I supposed, I made use of chloroform hypodermically, and the pain which followed was so severe that I shall not attempt to use it again. I came near killing one patient.

DR. JOHNSTON.—How much did you use?

DR. HILL.—Ten drops.

DR. DICKINSON.—I think it is an observation of Dr. Comegys that he has used chloroform without effect. He did not state that any ill result had followed.

DR. MULHALL.—It will be interesting to know whether in these operations the needle of the syringe entered the sheath of the nerve or not. I should like to know this because it is claimed by Mr. Kelly, a surgeon of Dublin, that he cures this trouble by transfixing the nerve directly through and leaving the needle in twenty-four hours. He is a skillful surgeon and anatomist. It would be interesting to know whether in Dr. Pollak's case the needle transfixed the nerve or entered its sheath.

DR. POLLAK—That I don't know. I could'nt tell.

DR. DICKINSON.—In the instance I mentioned I was not particular to reach the nerve. I endeavored to approach the vicinity. I had no intention of reaching the sheath of the nerve and probably did not.

DR. A. GREEN.—Is it very painful?

DR. MULHALL.—Yes, sir.

DR. STEVENS.—I would like to ask the question whether we haven't all had experience in the topical application of these remedies and with the very best results. I have seen instances where I have applied ice water and it relieved sciatica, and also facial neuralgia—tic douloureux. I have seen cases where

I have made hot applications and it would relieve where the cold would not. It seems strange that remedies so entirely opposite in their action should have such beneficial effects. We have also seen cases where we applied chloroform externally for the relief of sciatica, neuralgia in every form, with good effect. In some cases patients have to resort to chloroform constantly. This is also true of ether. What is the difference of applying cold by means of hypodermic injections and applying it by means of ice or ice cloths. I cannot see the advantage and I would like to know from Dr. Pollak whether he had tried the external application of ice and found that it failed, and then had succeeded by the injection of ice water?

DR. POLLAK.—This year I did not try the external application of cold. On former occasions I did. I have tried everything that I ever heard of. I have used cold water and hot water, Turkish baths, electricity, hypodermic injections of morphine in large doses, arsenic, and never found any relief from them at all. I just happened to read about this at the time I was suffering with the complaint and tried it. I thought it couldn't do much harm if it didn't do good. I cannot say whether it reached the sheath of the nerve or not.

DR. JOHNSTON.—We have heard reported an extraordinary cure for the disease termed neuralgia. The inquiry naturally arises with thinking men, what is neuralgia? If it is stated that it is an organic lesion of the nerve, we can understand the difficulty. If it be pressure upon the nerve, exostosis of a bone pressing upon the nerve we can understand what that is. In either of these cases neither an external nor an internal irritation would cure the disease. Already we have got too much internal irritation, and external irritation would not relieve it until we remove the pressure. If Adams is correct in his statement that the malarial organism is the cause of malarial fever and that this is the cause of neuralgia, then whatever remedy will kill this bacillus of malaria would remove the neuralgia. Jones says that neuralgia is a debility, a lowering of the nerve substance, and therefore it is a debility of the nerve. Now the case reported by Dr. Pollak is one, solitary and alone. That will not do to form the basis of a general conclusion. All the time there is a large quantity of water in our system. It is taken in by the mouth and absorption by the skin. We all know that

on a cold damp day we drink but little. Therefore if cold water injections cure neuralgia it ought to be relieved by an exposure to the damp, cold atmosphere; whereas the general rule is that neuralgia is much worse in such weather. The only way in which we can account for the effect in Dr. Pollak's case is by assuming that the irritation of the needle produced the effect. There was a low state of nutrition in the nerve probably and he introduced the needle deep enough to set up inflammation or increased nutrition of the nerve. As regards ether—that is an anodyne—an irritating anodyne which must necessarily produce great local irritation. It produces an anodyne effect, and it might be said to be a counterirritant and thus effect a cure. In regard to the external application of chloroform to the skin the dermoid tissue is irritated, you call the blood away to the external surface, and it relieves the patient in that way. Then again it might be absorbed and act as an anæsthetic and cure in that way. So it would be with ether, it acts in the same way, producing a species of intoxication. Now if the statement in regard to the origin of the trouble—that it is due to malarial origin, is true, then I don't see any way to cure the patient except to move him away from the source of contagion, or else, to use such remedies as will kill the bacteria. Nerve stretching is a process that has been carried on for years and it is not different from the Irish surgeon's method. He runs a stilletto into the nerve. Jones says it is a debility of the nerve, a want of nutrition. This is an extraordinary statement and the surgeon in Dublin didn't believe it. He runs a needle into the nerve and causes an irritation, sets up an active inflammation and he says this cures the trouble. He may have removed his patient from the malarial atmosphere. Ireland is a prolific country for typhus fever, and the malarial forms of fever. So that nerve stretching and nerve puncture is the same phenomenon.

DR. OHMANN-DUMESNIL.—I have had several cases of neuralgia in which I used quinine in very full doses and it did not act at all, but when I gave iodide of potassium, about two or three grains to the dose three times a day, it disappeared in a few days. It is quite recently that this has been suggested and I have used it successfully in these cases though they are few in number.

DR. JOHNSTON.—I wish the doctor would tell us what nerve

was involved and what he supposes to be the cause of the trouble. Charcot says that the iodide of potassium acts on the spinal marrow and nerves coming from the posterior and anterior columns and the cornua.

DR. OHMANN-DUMESNIL.—In one case the trigeminus nerve was affected, in another the supraorbital.

DR. POLLAK.—Was it of syphilitic origin?

DR. OHMANN-DUMESNIL.—No, sir.

DR. POLLAK.—Were they not rheumatic either.

DR. OHMANN-DUMESNIL.—No sir.

DR. HURT.—Of course, Mr. President, when we undertake to cure neuralgia the remedy must be selected with reference to the supposed cause of the disease. One of the reasons why we so frequently fail to cure neuralgia, is that we fail to reach the true cause of the disease. Now of course if there is pressure upon a nerve from exostosis, or if there is a tumor of some kind, it would be quite unreasonable to suppose an hypodermic injection of morphine or cold water or anything else would cure, or would do anything more than cause temporary relief. If the cause were the same as that which most commonly produces an intermittent fever common to our latitude and climate, why of course the same remedies would be found most useful for them. I regret that our failures to cure neuralgias justify my friend Dr. Johnston in doubting of curing them by cold water or acupuncture or anything else. I think we must admit the evidence of the fact that we fail with these remedies and a great many more. I thought I had found a sovereign remedy some year or two ago for the treatment of sciatica. I had a case complicated with lumbago. I had my patient on a crutch for some time and for the purpose of giving her temporary relief I proposod to give her a hypodermic injection of morphine; but she objected on the ground that she had taken morphine some years previously, and that it made her very sick, so that I couldn't get her consent for me to administer morphine in any way. She preferred to suffer with the pain. After she had some temporary improvement under iodide of potassium and the bromides, and tincture of iron, together with some other remedies, I prevailed upon her to allow me to inject hypodermically some ergotine, and as I felt sure that the operation would be attended with a good

deal of pain I, without her consent or knowledge, combined it with morphine. I did not inject it precisely over the sciatic nerve but tried as well as I could to divide the remedy between the sciatica and the lumbago. A short time after the patient had received the preparation she became very sick. I had gotten out of the way, but I understood I was pretty severely threatened for prevailing upon her to allow me to use the medicine, but as good luck would have it after the local pain and the unpleasant sensation of the morphine upon the nervous system subsided she discovered that the pain of the neuralgia and lumbago were relieved, and she felt no more of it. Well I congratulated myself and my patient upon her cure which I believe proved to be permanent, and at the same time I congratulated myself with the idea that I had made a great discovery, but I am sorry to say that in subsequent practice I have not had the success with it that I had in the first case.

DR. ATWOOD.—Speaking of the treatment of neuralgia, I have rarely seen a case that did not yield to atomized ether. I take an ordinary atomizer and direct the fumes upon the track of the nerves lying upon that part of the body, and in a minute or so the neuralgic pain ceases. It invariably relieves the trouble and sometimes permanently.

DR. WILLIAMS.—My friend, Dr. Johnston, ran through the different kinds of neuralgia except one, that is the neuralgia that comes from reflex irritation. I have within the past few years, had several cases of this kind, where I have given immediate relief by removing the cause. For instance, a bad tooth may cause the trouble. A lady living in Frenchtown had neuralgia extending over the whole head. It was in winter time that I was called to see her and she was going about with two pillows about her head, she couldn't bear the sensation of cold to her head. I made inquiry about her teeth and found that there were several of them decayed, there was tenderness and soreness, although they were not painful to her. I suggested to her the probability that if she had her teeth extracted she would get relief. She went to a dentist and had them extracted and has never had any neuralgia since. Since then I have seen a couple of cases of pain in the ear, where there was no visible disease whatever in the ear, but on investigation I found decaying teeth, teeth that were painful and tender, and I suggested to

these parties the way to cure the trouble—to get the teeth pulled; they did so and the ear trouble was cured. I think neuralgia is frequently the result of reflex irritation, and in investigating for the cause of the difficulty the physician would do well to examine carefully and see if he cannot find some point where the reflex irritation is set up. In such a case, of course, all the medicine in the kingdom wouldn't relieve them; the removal of the cause of irritation is the only way to cure it.

DR. ATWOOD.—The best local application that I have ever used, especially in neuralgia about the face is an ointment of veratria, morphine and lard. This is to be applied with steady friction until it produces a sensation such as is produced by the pricking of needles.

DR. HILL.—Speaking of reflex irritation producing neuralgia, reminds me that I have relieved neuralgia by the use of an active cathartic, croton oil for example, where there has been an obstruction of the bowels; but I have been more greatly disappointed this summer than ever before with the remedies. I have even gone to the extremity of making a section of the nerve without effect. I have used quinine hypodermically to produce quiet, using it in grain doses, three, five or eight times a day. I am glad this discussion came up. I am in hopes I may get some ideas that may be of value in a case that I now have on hand. I don't believe I shall feel like trying the cold water. I have another case that is in some respects, peculiar. I have often heard during my professional life, that when persons are bitten by venomous serpents or mad dogs, and recover, the symptoms often recur at certain seasons of the year; but I have never had a practical demonstration of it until this summer. I saw a gentleman, on the other side of the river, who, five years ago was bitten by a rattlesnake. The snake wrapped itself around his leg and sunk its fangs into his leg. He carried it across the field in that way and then fell from exhaustion. He recovered, and he states that every year about the season that he received the bite, there is a recurrence of the symptoms: great nervous prostration, severe griping of the stomach and bowels, and great restlessness. I was called to see him three weeks ago and I found his pulse forty-eight, his respiration from ten to twelve perhaps in the minute. I used the ordinary remedies, and the pain in the stomach was readily relieved by a mixture of bicar-

bonate of potash and chloroform. He has now recovered so as to be able to resume his work. I only mention this to show some of the anomalies that we meet with in our practice.

DR. A. GREEN.—One of the remedies for neuralgia, that I didn't hear any gentleman mention, is tincture of aconite. This remedy sometimes relieves the trouble just like a charm. This remind me of a case that I met with in the army. We had just packed up our baggage and prepared to march, when a soldier with an attack of sciatica was making so much noise that an officer came to me to see if I couldn't do something for him. We were very busy and so I just took a little bottle of aconite and told the steward to rub the part with it and in just ten minutes the pain was over. Of course, in many cases it will not do this, but in many cases it acts beautifully, especially so in facial neuralgia. My friend Dr. Hurt, just hit the nail on the head at first when he said that not only in neuralgia but in any other disease we ought to look for the cause of the trouble. We know that where a nerve passes through a foramen in a bone and the bone is a very little swollen, or something else presses upon the nerve, of course, we may in the first case, help matters by giving a few doses of iodide of potassium, which may help absorbing the infiltration in the periosteum; and in the second case we should try and discover the cause and take away the pressure. Again, in another case, for instance malaria. Dr. Johnston says that malaria is produced by microscopic organisms, and I think so myself, so that if this is the cause of neuralgia we must try and get rid of the malaria. I don't think we really cure the neuralgic affection by antimalarial medicines, as the neuralgic part is affected only indirectly by the malarial poisoning. There is a weak point in the organism and if any disease sets in, that part is liable to be first affected. Then again with reflex action, in the case Dr. Hill mentioned of the man who was bitten, I think in this case it was more imagination—it was partly imagination and partly malaria, because the part where he was bitten remained a *locus minoris resistentiæ*. It is just the same when a person has an attack of catarrh and gets over it, then he has another attack and another, and in time some alteration takes place in the mucous membrane and there is at last a local lesion in the tissue of the mucous membrane, that part is weakened by repeated attacks of catarrh, and is liable to recur at the

least insult; so it is here, the part is bitten, and it is less capable of resisting disease.

DR. JOHNSTON.—One word about aconite. I think that Hippocrates used that remedy 400 years before Christ, but it is only within the last few years that we ascertained the fact that opium and belladonna are antagonistic to each other in their action. I was called in to see a patient who had taken a dose of morphine, and I gave a dose of atropine.

DR. HURT.—As to the antagonism of atropine and morphine, it seems to me that Dr. Johnston was a little too sweeping in his declaration. He must qualify this expression. Atropine is antagonistic to morphine or other preparations of opium only in reference to its action upon the heart and not as an anæsthetic, not as an anodyne; as a painkiller, it is not antagonistic at all.

DR. JOHNSTON.—I have had some experience in the use of atropine. I have seen a number of cases where patients have taken over-doses of opium. One woman took several ounces of laudanum and we used atropine pretty freely and saved the woman's life—counteracted the effect. I think that all the writers, without exception, admit that atropine is antagonistic in its action to opium. Does it act specifically upon the heart? No, sir; it causes paralysis of the nerves and brain and then affects the heart secondarily. It does not act directly upon the heart if I understand Charcot and other writers; but these gentlemen state that it acts directly upon the heart. I contend that it acts upon the brain and spinal marrow first. If you watch persons die you will see that the heart will continue to beat after the respiration ceases. That has been my observation, and I think the authorities generally will bear me out that both morphine and atropine act more directly upon the nervous system.

DR. HURT.—I want to set myself right before the society. The idea is this: atropine is a vascular stimulant, while opium is a vascular sedative, and that is the reason why we give atropine or a preparation of belladonna, when over-doses of opium or morphine have been taken. We give a dose of opium for the purpose of subduing pain and to our surprise, find that we have given too much and the pain has been subdued most effectively; the heart begins to fail; now a dose of atropine will probably restore the action of the heart, but it will not restore the pain; on the contrary it will increase the anodyne effect, if anything. Showing that as an anodyne, opium and belladonna are not antagonistic, but synergistic; but in regard to their effects upon the vascular system, they are antagonistic. That is all.

Article LXXI.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty-Fifth Annual Meeting, held at Brittingham Hall, Hannibal, Mo., May 16–17–18, 1882.

President's Address.—Quacks and Quackery in Missouri. By Dr. Willis P. King, Sedalia.

In order to present the quack in his true light, let us first see what manner of man the true physician is, so that, by the outlines of his true symmetrical character, the former may be made to stand out in all his ugly deformity.

The true physician is a man of good moral character. His conduct is such that, with those who know him best there is no doubt about it. His acts are the acts of a noble, true and unselfish man who means to do right not only by himself, but by all with whom he comes in contact. He is a man of knowledge, and is not content with what he already knows, but is constantly and persistently striving to know more. He takes and reads the best literature of his profession, and would at any time stint his stomach or cheat his back of a new coat in order to buy a new book written by one of the masters of the profession. He tries to familiarizo himself with every form of disease, and to arm himself with the best weapons with which to meet and vanquish the enemy. He makes no pretension to knowlege that he does not possess, and when he does not know a thing, will admit that he does not.

He knows the weaknesses and faults of the people whom he treats, and, like a true man, hides them away from the world in the innermost recesses of his heart, and is not burdened—for secrets are a burden to those only who desire to tell them. In short, the true physician is an upright and true man; a worker and a seeker after the good things attainable; is honest and unselfish, and a doer of good deeds through all his life; and when he gets old and too frail to work longer, he can sit down with the satisfying thought that he has done all that it was possible for him to have done in his sphere. He meets his fellows

with head erect because he is not ashamed, and when death comes he goes,

> "Not, like the quarry slave at night,
> Scourged to his dungeon, but, sustained and soothed
> By an unfaltering trust, approaches his grave
> Like one who wraps the drapery of his couch
> About him, and lies down to pleasant dreams."

But what shall I say of the quack? How shall I describe him? He presents himself in so many different forms that, like the chameleon, he is hard to describe. In order to properly describe him, I shall be compelled to divide him and describe him under different heads.

The gentlemanly quack may or may not be a graduate, but he is a gentlemanly man. He starts out in his professional career with good prospects; but he is like a wasp—larger when he is born (graduates or begins) than he ever is afterward. He is a person who attains to the full height of his intellectual and professional manhood early in life, and, afterward, instead of growing and broadening, he begins to dwarf and soon becomes professionally mummified. He does not attend medical societies, and does not study; never buys a new book, and does not take a medical journal. He does not "believe in medical journals," and thinks that they "do a doctor more harm than good." He soon forgets everything that he ever knew; makes up a jumbled anatomy, physiology and pathology of his own, then goes into a rut and consistently stays there. He will accept your diagnosis without a murmur, although it may overturn all that he has been compelled to say of or do in the case; and when you are gone he goes right back to his own treatment, and sticks to it until the patient dies. He cannot see why the patient did not get well because about all the people that he ever saw recover did so under that identical treatment. "Bilious attacks" and "malaria" are the favorite diseases of this man. All other diseases he conveniently divides into "lung diseases," "kidney affections," and "liver complaints." For the first he gives compound syrup of squills; for the second, sweet spirits of nitre; and for the third, calomel, podophyllin, or nothing, according to the school he represents. When he is not able to locate the disease, he bombards the liver on "general principles." He gives calomel, day in and day out, in obstruction of the "common duct" of the gall-bladder, and diuretics in retention of urine

from strictured urethra. This same fellow sits by the bed of a parturient female for four or five days, in cases of cross presentation and difficult labor from any cause, because he "believes in letting nature take its course," and sits around "like a knot on a log" and lets women die from post-partem hæmorrhage, because he does not "believe in meddlesome midwifery." This man is a good collector; takes whetstones, fiddles, cows, calves, second hand furniture, and tow linen for his pay, and turns it all over to the best advantage without ever discovering that nature cut him out and fitted him for a junk-dealer and a rag-man.

Perhaps the best thing that can be said for this creature is, that he goes through his whole profesional life, and finally dies without discovering the fact that he has killed from ten to twenty people every year.

The smart pretender is a different man from the foregoing. He is a loud man. There is nothing, if you will believe him, that he does not know. He has specifics for everything, and actually cures people, no matter what the disease is. He get through college cheap, practices medicine cheaper than anybody, and is altogether a cheap man. He gets practice by sending word that he can cure the case, has cured many just like it. He makes a diagnosis offhand and at long range, without having seen the case or even heard much about it. This man is unfitted by nature for the noble and exalted duties of the physician, because he is shallow, does not know anything, and is incapable of knowing much. He is naturally a coward and a liar, and no coward and liar ever made a good doctor. He seeks practice for the basest and most selfish reason, and indeed is never actuated by lofty and unselfish motives. This fellow is transparent even to the laity, and is compelled to seek "greener fields and pastures new" quite often. He may take a new place by storm, but he is too weak to "hold the fort" very long.

We have also the professional buzzard. This is the weakly, watery-eyed, red-nosed old scarecrow, who at some time in his early life has gotten hold of several recipes which he considers valuable, and he is therefore induced to give suffering humanity the benefit of them. He is poor and mangy and mean, and hangs upon the outskirts of the profession just as the cayote and the buzzard hang upon the outskirts of a battle-field—picking up whatever he can. He is greasy and pinched and mean; has a breath of benzine and the general odor of unchanged linen.

He slinks naturally from the true members of the medical profession, always comes into the drug-store by the back door if he can get in that way, and learns all that he knows about new remedies from the drug-clerk. He cannot write a prescription, and he has a decided weakness for "yarb-medicines," which he gives in the form of "slops and teas." He pours this stuff down his dupes with about the same idea, I imagine, that a hired girl pours dish-water down a rat-hole—that of filling a vacuum and killing time. This wretched and dismal old fraud does not do much harm, however, for the reason that the people whom he kills are pretty much like himself—making better manure when dead than citizens while living.

The advertising quack and swindler is the worst of the lot. He is the black wolf, aye, the Bengal tiger of the profession. He is ignorant as a physician, but not an ignorant man by any means. He is full of shrewdness and cunning and knows poor, weak human nature like a book. He has within him all the elements that go to make up the successful gambler, three-card monte man, or burglar. He may have his little trouble, as all people do, but it is not with his conscience. His office (which is generally a fine one) is a sort of bunko-shop into which the ignorant and incredulous are inveigled and mercilessly swindled. He chooses the practice of medicine as a profession, instead of burglary because the law protects him in the one, and does not protect him in the other. His office is hung with forged diplomas, and with pictures representing surgical cases upon which he pretends to have operated, but did not; and his pigeon-holes are full of certificates of cure, written and signed by himself. He knows the value of printer's ink, and uses it liberally. He advertises to cure all diseases, both acute and chronic; and he makes a specialty of diseases of the eye, ear, throat, nose and lungs, diseases of the mind and nervous system, diseases of children, consumption, piles, gynæcology, and fits. He fills his own prescriptions to prevent the exposure of his shallow pretenses, and tells his gaping victims that his medicines cost ten dollars per ounce and more, and that he sends to New York, Boston and foreign countries for most of it. He is the discoverer and sole proprietor of the never-failing cancer remedy and world-renowned cure for consumption. He treats pimples, boils and local skin eruptions as cancer. He sets a high price upon his

work, and always gets one-half in advance, and, if possible, a bankable note for the remainder.

No age, sex or condition in life are safe from the wiles of this scoundrel and mountebank. He is master of all the arts by which he can get a hold upon the unfortunate and suffering, and when they are once in his power he is as merciless as a pirate. He will undertake a case of "consumption" at the brink of the grave, and will collect money in advance, and rob widows and orphans with the promise of doing something that he knows he cannot do.

He is, in brief, professionally an ignoramus, naturally sharp, cunning, cruel, a thief, a cowardly robber and a merciless pirate, a murderer and a villian so black and damnable that the English language, in its utter weakness, fails to furnish words with which to paint him.

Compared with such a man, thieves, garroters, burglars and train-robbers become decent and respectable. It requires courage of a certain kind to burglarize a house or a bank, and it requires courage of a much higher order to rob a train; but it does not require any courage at all to rob a sick man. It requires nothing but a heart devoid of pity, and a nature supremely selfish and regardless of the rights and interests of others. Sustained by the fact that no law exists by which he may be punished, such a villian, after having won the confidence of his victim by his specious promises, may take the last dollar or the last piece of property, and enjoy his ill-gotton gains to his heart's content, while there is no one to "molest or make him afraid."

Have we, let me ask you, gentlemen, such characters practicing or professing to practice our noble art in this State? It shames me to be obliged to answer such a question in the affirmative. We do not only have such, but our State is full of them. Every county contains them, and in many counties they outnumber the educated and respectable practitioners. The *gentlemanly quacks* first described, constitute the largest number. The second and third classes are about equally divided, while the *advertising swindler* is in the minority. Yet this latter class make up in cheek, impudence and general villainy what they lack in numbers. They frequently travel from place to place, heralding their coming in flaming posters and profuse locals, and then never fail to find victims, even in the most intelligent communities.

In order to ascertain as nearly as possible the true condition of medical practice in this State, I issued on January 1st of this year, a printed circular letter, in which the following questions were asked:

1. How many people are practicing medicine in your county?
2. How many men? How many women?
3 (*a*). How many belong to the regular school?
(*b*). How many belong to the Eclectic school?
(*c*). How many belong to the Homœopathic school?
4. How many of the number practicing do you regard as incompetent and unworthy?
5. How many are known to be or are suspected of producing abortions?
(*a*). How many men?
(*b*). How many women?
6. How many are graduates of reputable schools in your county?
(*a*). How many men?
(*b*). How many women?
7. How many of the number practicing do you regard as persons of grossly immoral character?
(*a*). How many men?
(*b*). How many women?
8. How many deaths (approximate) do you think occur annually in your county in consequence of the neglect, ignorance and incompetence of these incompetent and unworthy practitioners?
9. Approximate as near as you can to the amount of money collected from the people of your county by local and traveling and advertising quacks.

Please write me a statement of any cases of death from the incompetence of the attending physician, and also of extortion of money with the promise to cure cancer, consumption, &c. Also give me any expressions of said quacks, thus exposing their ignorance, which may be used for the purpose of making quackery appear ridiculous.

Of the 114 counties in Missouri, 102 responded, and by comparing populations with other counties in the same region of the State I have made what I deem it to be a fair average answer for the other 12 counties. I find from these reports that there are 4,834 *people* practicing medicine in this State. Of these

4,679 are men and 155 are women. The different schools are represented as follows: Regular school, 3,453; Eclectic school, 581; Homœopathic, 217; Nondescript, 583. There are 2,546 who are graduates of reputable schools. Of these 2,526 are men and 20 are women.

There are 269 known to be or suspected of producing abortions. Of these 230 are men and 39 are women. There are 1,904 who are deemed, by those who are competent judges in such matters, to be incompetent and unworthy to represent the noble and high calling of our profession. There are 452 of this number who are considered to be persons of immoral character. Of these 318 are men and 34 are women.

Gentlemen, this is a fearful record. But this is not all. From the ignorance and incompetence of the so-called doctors 5,570 people are supposed to die annually in this State—5,570 persons whose lives might have been saved by the timely aid and intelligent interference of a man of knowledge, skill and courage. My own impression is that this estimate is much too low.

These ignorant and incompetent persons (and, in many instances, villainous robbers) are estimated to have collected from the people of this State $1,184,000 each year. Taking the number reported to me as quacks and giving them $600 each, the amount foots up $1,142,400. At $1,000 each (and many of them get three times that sum) it will make $1,900,400 which the people pay for ignorant and incompetent service in the times of their greatest need—which they pay in many instances for being either robbed or ruthlessly butchered or for both. The people actually pay men who stand by and see them bleed to death from accidents—the attendant being too ignorant to tie an artery; or poor mothers are permitted to flood to death without help while the stupid asses who attend them stand by and do nothing because they know not what to do. but there is another serious feature in these reports. There are 269 who are known to be or suspected of producing abortions. This number is also, perhaps too small. Giving to each of these thirty infants a year and you have 8,070 children destroyed before they are born. Comment on such statistics cannot possibly add anything to the horror of the statement. In answer to my tenth question, or request rather, I have the following curious mixture of things:

[Here follow some twenty pages of matter, showing the

ignorance and pretentions of quacks such as every physician knows, and it would be superfluous to insert them.]

The Legislature of Missouri is the only source from which we may expect any relief in this matter.

Our present law is inadequate to protect the medical profession from the disgrace that quackery casts upon it, or the people from the evils and dangers of ignorant, vicious and incompetent practitioners. This law was enacted in March, 1874, but did not go into force until the following September. In the meantime all who were then (or contemplated) practicing were permitted to register. The weak points in this law are:

1st. It permitted anybody—whether qualified or not—to register. It was a sort of invitation to all, who ever expected to engage in any kind of humbuggery in connection with medicine, to come and begin at once. It did not pretend, through agents appointed under its provisions, to make inquiry as to the qualifications of those who should register.

2nd. It provided that, after September, 1874, every person registering should file a copy of his diploma, but made no provision against the filing of bogus diplomas, so that the operation of this law has rather tended to increase the sale of these false instruments. This law is still upon our statute books. During the session of 1880–81, another bill was drawn up by a committee of the St. Louis Medical Society and introduced in the lower house. There were two bills in fact—one creating a State Board of Health, and one "To Regulate the Practice of Medicine and Surgery." The Board of Health bill created a board of five physicians and two citizens, the medical part of the board being taken from the different schools in the proportion of three Regulars and one each from the Eclectic and Homœpathic. This board was to have charge of State sanitation, and were to act as a Board of Censors in the regulation of the practice of medicine and surgery. All persons having diplomas were to file copies—sworn to—before said board, and all persons who had practiced medicine in the State for more than ten years were to file a sworn statement of that fact certified by the affidavits of two citizens, which statement was to be accompanied by a fee of one dollar. All other persons were to present themselves before the board for examination and pay a fee of five dollars. The bill also gave the board the power to assess a fine of twenty dollars against any one presenting a bogus diploma.

A committee of the St. Louis Medical Society, with the Hon. Chas. W. Francis, Health Commissioner of St. Louis, some of the physicians at the State Capital and myself, constituted about all who worked for the passage of the bill outside of members of the Legislature. Being on the ground for a time, and going in person before the Special Committee to which the bill was referred, I was enabled to learn what the opponents of the bill, and of legislation of this kind in general, had to say. The main arguments were about as follows:

1st. "If the regulation of the practice of medicine and surgery is put into the hands of the doctors they will not treat each other fairly."

To this we answered: That in the hands of the medical profession is the place for the regulation of this matter. That no one, except a good doctor, can possibly know what the qualifications of a doctor ought to be; and that no one, indeed, is capable of distinguishing between an educated physician and a quack, except an educated physician; and further, that there is no more reason to suppose that doctors will mistreat each other than that lawyers—who regulate the admission of members into their profession—will do the same.

2nd. "That legislation of this kind is contrary to the broad principles upon which our government and our institutions are founded; that a man has a right to practice medicine if he so desires, and all who wish to employ him have a right to do so."

To this we answered: That while at first glance this seems to be true, yet it is not true. A lawyer cannot practice in our courts, taking into his hands issues involving life and valuable property interests, without having been examined by a committee of lawyers. There are laws, national and State—regulating steamboat pilots and engineers in very much the same way. If life is to be protected by law when jeopardized in court, upon railroad trains and steamboats, why does it put such a strain upon the genius of our institutions, when we wish to protect it from incompetency at the bedside in sickness? If it is an infringement of a man's natural rights to refuse to permit him to *butcher himself with a quack doctor*, is it not then an infringement of these same rights when the law refuses to permit the druggist to sell him morphia and strychnia in suicidal doses?

3rd. "That those who are practicing under the law of 1874

have '*vested rights*' which the law-making power has no right to disturb."

To this we answered: That while we did not profess to be lawyers and were not able to buy profound legal opinions, yet the law had assumed to regulate this matter in 1874, and its right to do so had not been questioned. If it had a right to regulate it, then it has a right to change the manner of its regulation whenever the necessity for such change becomes apparent. That a change in the law punishing three card monte, horse stealing, burglary and bigamy, perhaps disturbs somebody's '*vested rights*,' and yet such changes are made. That, in other words, quackery in medicine is a crime against the human race, and inflicts its mischief upon the weakest part of it—upon the physically and often upon the mentally sick and suffering, and should, therefore, be stopped by law.

4th. "You cannot catch *all* the quacks with any law, therefore, let them all go.

To this we answered: Apply the same argument to horse thieves, burglars aid other criminals—if we cannot catch them all (and we cannot) then let them all go. We cannot collect all the taxes that should be collected under an honest assessment, therefore do not collect any.

5th. "If people will employ quacks let them be humbugged."

To this we answered: We might use the same argument against three card monte and the patent churn swindler who has a note concealed in a printed contract, and yet we have a law against both. Men who could be imposed upon by either of the above are daily imposed upon and swindled by quack doctors.

The bill, after having been somewhat modified and marred, passed the house but was defeated in the senate.

The principal reason for its failure was owing to the fact that in the Board of Health Bill there was a clause appropriating ten thousand dollars with which to defray expenses. In the second place, there was not that unanimity amongst the better men in the profession that there should have been. Another reason for its failure was, that when it became known that such a bill was before the legislature, every fellow with a *bogus diploma*, and every weak rascal who felt that he could not withstand the crucial test, wrote to his member and his senator, and in every way they set up such a howl that many of the representatives and senators were really impressed with the idea that the great

majority of the profession was opposing the measure. If the good men in the profession were as active in the support of needed legislation as the bad ones are in their opposition, there would be but little trouble in procuring what we ask and what the State so much needs.

We must make up our minds, gentlemen, to agree upon some measure, that will rid the State of this dangerous class of men, and then unite, as one man, in urging its passage.

We should unite in proposing such a measure as will commend itself to the legislature—a measure in which there shall not appear anything of selfishness upon the part of those proposing it. Let it be shown that we are not working for ourselves in this matter, but that our desire is to protect the innocent, the ignorant and the suffering from ignorant pretenders and merciless sharks. While I do not wish to trench upon the grounds of the "Committee on Medical Legislation," I desire in conclusion to suggest what, in my opinion, should be the main features of the legislation that we should urge; and in doing so I shall recommend what is now the law of the State of Alabama, with some additional features which I deem necessary to the better enforcement and more perfect working of the law. Under this law the Medical Association of Alabama has attained a point far in advance of most of the other State Associations, as is shown by their annual transactions. Dr. Jerome Cochran, of Mobile—the father of the law—writes me that in the government of the profession in that State "have the discipline of the regular army."

To accomplish what such a law should, *i. e.*, eliminate from the medical profession all persons who are incompetent and unworthy, and to educate the others as highly as it is possible for them to be educated—the law should:

1st. Put the matter of the Regulation of the practice of Medicine and Surgery on a firm footing.

2nd. Do it in such a way that each school shall control its own adherents.

3rd. The law should be such as to indirectly compel the organization of County and District Medical Societies and of State Associations.

4th. A Board of Censors, elected by each County Medical Society, should be empowered to examine all the physicians in their county, and to grant certificates entitling them to practice when they are found to be qualified.

5th. The law should permit them to ignore the diplomas of all colleges.

This right to practice should extend only to the county in which the party resides—in other words it should not entitle him to *remove* to other counties and practice without first undergoing an examination there.

6th. The state associations should have a Board of Censors to whom appeals could be made by parties who should be dissatisfied with their examination.

7th. In case there should not be a sufficient number of physicians in any county to form a society, they should have the power to form district societies and appoint their censors from such societies.

8th. The State associations should then be composed o delegates from the county and district societies.

9th. The constitution and by-laws of our association should be made to conform to law.

10th. The law should provide that in case any school failed, by a stated period, to organize an association, then the members of that school should be examined by a committee from those that are organized.

11th. Let the word "schools" be construed to mean Regulars, Eclectics and Homœpaths, and compel others, such as Hydropaths, Victopaths, Electropaths, Rubbers, Spankers, Faith doctors, etc., to submit themselves for examination before a board of the schools mentioned.

The first effect of such a law would be to drive about *one thousand* persons either out of practice or out of the State (the more *outs* the better), to stop about six or eight hundred more by reason of their rejection, and to scare five or six hundred more into taking a course of lectures, which they need badly. This would leave comparatively light work for the boards of censors.

Such a law would afford us a means of constantly increasing the general stock of knowledge for the dissemination of valuable medical literature through these county, district and State associations. Give these associations the power to stop a man from practice, from wrong doing, and you will not long complain of the state of things that I have detailed to you. You would soon find it true in this as in other things:

> "The fear o' the rod's the hangman's whip
> That hands the wretch to order."

Periscope.

Article LXXII.

PRACTICE OF MEDICINE.

Health of Criminal Women.—Dr. E. M. Mosher, Sup't Mass. State Reformatory Prison for Women from an examination of 2,196 women, who were committed to the prison for crimes, comes to the following general conclusions:

1. Intemperance and unchastity are the two vices which fill our penal institutions with women.

2. The influence of these two vices is detrimental to health of body, increasing its susceptibility to disease, and lessening its recuperative power.

3. The diseases which follow as a direct result of these vices are syphilis, alcoholism, dyspepsia, rheumatism, and general anæmia.

4. Morbid conditions of body react upon the moral nature, increasing and perpetuating the tendency to criminality; hence the importance of careful medical supervision as a reformatory measure.

5. More ample provision should be made in all large cities for the isolation and thorough treatment of venereal patients of *both sexes*, either by the addition of special wards to the general hospitals or by the establishment of hospitals for this class.

6. The women who commit high crimes, that is, larceny, burglary, arson, manslaughter, etc., possess a more sensitive nervous organization than those who commit only offenses against chastity and public order.—[*Boston Med. and Surg. Jour.*

The Treatment of Empyema.—In an elaborate article on this subject in the *American Journal of the Medical Sciences* for October, 1882, Dr. Wm. C. Dabney draws the following conclusions:

1. "Medicinal" treatment, as it has been called, namely, treatment with operation, occasionally gives favorable results, but is not advisable, inasmuch as cases so treated are liable to

terminate in one or other of the following ways: (*a*) Sudden death, (*b*) exhaustion, (*c*) suffocation, (*d*) phthisis, (*e*) septicæmia, (*f*) calcareous degeneration of the pus, (*g*) secondary pneumonia and gangrene of the lung, (*h*) peritonitis from the bursting of the empyema into the peritoneal cavity, (*i*) amyloid degeneration of the liver, kidneys, etc.

2. Aspiration has given good results in the case of children, and should be tried in them before the radical operation is resorted to.

Aspiration and the immediate washing out of the pleural cavity through the aspirator (Kashimura's treatment) has not been used sufficiently often for any conclusion as to its efficacy to be reached.

3. Free incision into the pleural cavity is usually necessary, and the best point for such an incision when only one is made is at the lowest point of the purulent collection, and directly below the angle of the scapula. Costal resection is to be avoided if possible, especially in children.

4. Continuous is preferable to intermittent drainage, because (*a*) the danger of absorption is thereby lessened, (*b*) there is usually less danger of irritative fever, (*c*) the empyemic cavity is placed in a better position for healing. Continuous drainage is best effected by a drainage-tube.

5. Thorough drainage is only advisable where the discharge is very fetid, and where a single opening has proved insufficient.

6. The thoracic opening should not be allowed to close if more that two drachms of pus are discharged daily.

7. The danger of sudden death during thoracentesis or injection of the pleural cavity, when proper care is used, is so slight that it may practically be disregarded; but when injections are used, especial care should be taken to see that they have a free outflow.

8. Simple injections of pure water are often sufficient, but compound tincture of iodine, one part to four of water, is devoid of danger, and hastens recovery. This will usually check fetor also; but if it does not, salicylic acid or permanganate of potash in one-half or one per cent. solutions, may be employed. Carbolic acid is dangerous, as is boracic acid also.

9. Listerism would probably be advisable in city or hospital practice, but is of doubtful efficacy in the country, and under no

circumstances should it be allowed to interfere with thorough drainage.

PATHOLOGY.

ONE OF THE CAUSES OF SUDDEN DEATH.—For a long time already clinicians have been bothered to see persons die suddenly, either under the symptoms of embolism or heart-thrombosis, or under the symptoms of aploplexy. But when the post-mortem examination was made, to show the embolus or thrombus on one side or the hemorrhagic effusion on the other, no such things were found. Later observations demonstrated the fact that the only morbid lesion found under such circumstances, was the ossification either of the coronary arteries, or of the cerebral vessels. This, however, seemed not to account for the sudden death.

Cohnheim, in his new edition of his celebrated lectures on general pathology (Leipzig, 2d edition, Hirchwald, Berlin, Aug. 1882), gives us at last, an explanation of this fact. He tied the coronary arteries, and found, to his surprise, that without giving rise to any prodromic symptoms of debility of the heart, the organ came abruptly and suddenly to a stand-still during diastole.

We can see now how a gradually progressing sclerosis of the coronary arteries, for instance, will suddenly occlude these vessels totally, and cause instantaneous death. Certainly such cases do not happen frequently, as usually the ossification in one artery goes on more rapidly than in the other, and we have then premonitory symptoms of failure of the heart's action; but often enough the morbid process progresses symmetrically, and then we have such a sudden death. The same explanation holds good for the similar conditions in the vessels of the brain, *i. e.*, the large arteries.—[*Med. and Surg. Reporter.*

SURGERY.

TREATMENT OF GANGRENE OF THE INTESTINE.—Dr. Weir raised this question by relating the following case: About ten days ago a woman aged thirty-five years was seen by him in consultation. Her physician states that on the 10th of May last she was seized with collicky pains and vomiting. Passing his hand over her abdomen, he could discover no hernial tumor, but, as there was apparently intestinal obstruction, he gave opium freely, and repeatedly administered enemata. After four or five

days a free movement of the bowels took place, and she felt relieved. He discovered, the day before Dr. Weir saw her, a tumor in the left groin, and the patient then told him that this had first appeared, although temporarily, the preceding August. Dr. Weir found on examination that the tumor had all the signs of a stercoraceous abscess just below the femoral opening on the left side. On incising it, fœtid pus and fæcal matter were discharged. The sphacelated portion of gut, about an inch long, was laid open freely, and, as the fæces had free vent, nothing further was done. The patient was entirely relieved, and the sloughing cellular tissue had since come away, leaving a fistula discharging biliary matter. Dr. Weir thought that an artificial anus in this locality would be more likely to heal than if it had been at the site of an inguinal hernia. He found that the statistics of resection of gangrenous intestine, as done by Czerny and Gussenbauer, gave only about thirty-five per cent. of recoveries. He asked whether it were better simply to slit up the strangulated portion of intestine, hoping that the artificial anus would heal of itself, or, as had more commonly been done of late, to remove the gangrenous portion, and unite the upper and lower healthy segments. He believed that the older method would be preferable in most cases, and that the resection would be suitable for gangrene, either where it was so recent as to be unguarded by adjacent adhesions, or was due to an internal strangulation.—[N. Y. Med. and Surg. Soc. in *N. Y. Med. Jour. and Obstet. Rev.*

MENTAL AND NERVOUS DISEASES.

THE EPILEPTIC CHANGE AND ITS APPEARANCE AMONG FEEBLE-MINDED CHILDREN.—I. N. Kerlin, in a paper read before the Association of Medical Superintendents of American Institutions for Feeble-Minded Children, at its last meeting, considers some important facts regarding the prognosis and management of a class of peculiarly interesting patients. He concludes:

1. The knowledge gained through careful inquiry proves that early in their lives a very large proportion of feeble-minded or idiotic children present a history either of epilepsy or other neurosis associated with and suggestive always of that disease.

2. The so-called epileptic change is not necessarily accom-

panied, in the present history of any individual case, with convulsions and insensibility, for these may be transmuted into emotional automatism, eccentricities of behavior or morals, etc., lesser indications of the concealed malady.

3. As a rule, our feeble-minded children manifest their epilepsies in superficial and subjective ways which make them peculiarly admissible of psycho-medical and physiological treatment.

4. By refusing admission of all feeble-minded children who may be epileptic, without discrimination of the essential characteristics and varieties of the disease, we shall certainly bar many curable cases of epilepsy whose mental enfeeblement equally requires our skill; also when admitting any feeble-minded child, without the open complication of epilepsy as usually described, not unfrequently it is discovered that latent epilepsy came with the child; hence the unwisdom, in the first instance, of a course absolutely proscriptive of this unfortunate class of idiocy, and hence, also, the impossibility in the second instance, of keeping our institutions entirely free from patients who may exhibit at any time this prominent complication of child-insanity.—[*Alienist and Neurologist.*

INSANITY OF MASTURBATION.—Under this title, Dr. C. B. Burr (*Transaction Michigan State Medical Society, 1882,*) discusses the type of insanity which Kohlbaum calls hebephrenia, and which is really not an insanity due to masturbation, but arises from trials the mental condition of the individual is subject to during the evolution going on during puberty. Dr. Burr gives a very clear description of the symptoms, and calls attention to the fact, which was so strikingly ignored by the government experts in the Guiteau case, that sexual ideas and religious delusions are almost concomitant. He refers this, like Skae, to the influence of remorse, an explanation which will scarcely hold water. Sexuality and religion both belong to the sphere of the emotions, and in the close relation between these is found the explanation of the religious motives of sexual lunatics. Dr. Burr gives the following symptoms of hebephrenia: 1. An intense vanity or self-love. 2. Extreme selfishness and disregard for others. 3. Religious delusions and perverted moral sentiments. 4. Delusions referable to the sexual system. 5. Aural and visual hallucinations of a certain definite character. 6.

Emotional disturbances. 7. Homicidal and violent impulses. 8. Physical disorders referable to an impaired nervous system. Certain of Dr. Burr's cases are not hebephrenia, but are strictly cases of original monomania (primäre Verrücktheit; manie raisonnante).—[*Jour. of Ment. and Nerv. Dis.*

LESIONS OF THE ISLAND OF REIL.—In the subjects of aphasia, the lesions are not often limited to Broca's convolution, but also involve the island of Reil. The observations proving this have been made by Charcot, Meynert, Lepine, and others. The function of the insula has been lately studied by Dr. Perdrier, experimentally and clinically. He finds that destruction of the insula in animals does not affect motility or sensibility, but that it is a psychical center, purely. In three examples in man of lesions of the insula absolutely limited to this area, there was hemiplegia, in which the arm was more decidedly affected than the leg. The paralysis of motion is complete, and there are no contractures or disorders of sensibility. The muscles of the trunk and of the face are not affected.—[*Medical News.*

TREATMENT OF MENIERE'S DISEASE.—Dr. Nakachian has brought forward a number of new cases in illustration of the good effects of quinia in Ménière's disease, as originally shown by Charcot. The quinia is given in doses of 60 to 80 centigrammes (10 to 14 grains) per day for fifteen or twenty days. Then an interval of the same duration as the treatment is allowed, and the administration of the quinia is again resumed in the same way as at first. There are two or three or more of such periods of treatment, with the intervals of respite. During the administration of the remedy, the symptoms of the disease—the noises in the head and the vertigo—are increased; but during the interval a marked improvement is observed, each time greater. Recently Charcot has tried salicylate of sodium, and it is found to have the same effect as quinia. Probably other remedies producing tinnitus and vertigo will have some curative influence, the disturbance caused by the remedy supplanting that caused by the morbid process.—[*Medical News.*

OPHTHALMOLOGY.

EYE DISEASES DEPENDENT UPON SUPPRESSION OF MENSES.—In the *American Journal of the Medical Sciences*, for October,

1882, Dr. J. McKay reports twelve cases in which suppression of the menses was accompanied by disturbance of vision. Cases of this kind demand prompt recognition as to their etiology (before vision is too much impaired by the internal eye disease) in order that they may be successfully treated and relieved. Partial loss of vision, and inability to use the eye in young healthy looking females, *with external eye disease*, always suggest to his mind the probabilities of menstrual disturbances, and it is inquired about. Young school girls often manifest asthenopia (weak and painful sight) about the time their menses are being established, and especially if their menses become irregular from any cause, which may produce partial or complete suppression for an indifinite time. Sometimes they manifest decided congestion of optic papillæ and retinæ, and others no internal lesion, with the exception of strain of their accommodation which is common to all of these cases, for they have some refractive deformity of their eyes, which, sooner or later, causes their muscles of accommodation to rebel from their over-taxing and too continuous work.

LONG-CONTINUED PRESENCE OF A SPICULUM OF COPPER IN THE CORNEA WITHOUT EXCITING APPARENT IRRITATION.—Wm. Shaw Bowen, M. D., of Providence, R. I., writes to the *Archives of Ophthalmology*, as follows:

The publication by Knapp (vol. xi, No. 2, *Archives of Ophthalmology*) of the innocuous lodgment of a fragment of steel in the cornea for two years, affords an excuse for the mention of the following instance of the possible toleration by the cornea of a foreign body of a more dangerous nature for nearly as long a period of time.

Mr. H., a healthy, middle-aged farmer, resident in Washington County, in this State, approached the writer in December, 1881, on a railroad train, with the request that he remove a troublesome cinder from the locomotive, that had just lodged beneath the upper lid of the right eye. In the act of eversion an opacity was observed in the segment of the cornea on a line with the pupillary margin. After brushing off the cinder a closer examination determined the presence of a foreign substance, and on inquiry concerning its history it was ascertained that it was the result of the explosion of a percussion-cap on the tube of an old-fashioned cavalry pistol in the close vicinity

of the eye, twenty months previously. Although the fragment was completly embedded in the corneal layers, and there was no evidence from the past history, or from any objective examination of any irritation having been present, the probabilities of its occurrence were pointed out, and Mr. H. requested me to remove the foreign body. This was done the same day by making an incision with a narrow cataract knife along the course of the spiculum, which was lifted out with an ordinary spud. The bit of copper which was surrounded by gray tissue, proved bright and clear under the lens. Its length was 1*mm*. Prior to removal, V=$\frac{1}{20}$. A slight reaction followed the removal, presumably from exposure during the homeward journey, but nothing unpleasant resulted. An examination within a few days, June 10, 1882, showed a slight corneal macula. V=$\frac{2}{20}$.

OBSTETRICS AND GYNÆCOLOGY.

INTRA AND EXTRA UTERINE TWIN PREGNANCY.—The following is from a reprint from volume second of the Gynæcological Transactions: In his paper, the author, Dr. B. B. Brown, gives a description and table of all the reported cases which he has been able to collect from the different medical works and journals.

He collected in all, twenty-four cases, the first of which was Duverney's in 1808, the last Galabin's in 1880.

Of these twenty-four cases, twenty were left to nature, while four were operated upon, the results being as follows: In the twenty cases not operated on the mother died in eleven and recovered in nine. The intra-uterine fetus lived in seven cases died in three; in the other ten cases the results to it were not reported. The extra-uterine was dead in all cases in which the results were reported.

In the four cases operated upon, the results were fatal to the mother in three, in one case both fetuses lived, the mother dying. In two cases the extra-uterine lived and in one it died; in the other two cases the results were not reported.

In one case the fetus was removed through the vagina, the mother recovering. Barnes' theory is that the two ova obstruct the way for each other in their passage along the tube, one being forced back into the abdominal cavity, or remaining in the tube, becomes developed in those positions.

In all cases in which the position of the placenta was recorded, it was attached exclusively to the uterus and fallopian tube, and

the removal of these organs, as in the Porro operation would appear to give the mother a better prospect for recovery.—[*Obstetric Gazette.*

WHY ARE NOT WOMEN MORE HEALTHY?—The Association of Collegiate Alumnæ have issued a circular, in which they say that the physical status of American women of the educated class is painfully low. They call the attention of parents, institutions and students to certain evils which help to make sickly women.

1. Social dissipation and excitement, which is neither amusement nor recreation. Girls are too often stimulated to shine socially and intellectually at the same time. A mother proves her daughter's perfect health by saying: "She has been able to go to parties or entertainments four or five evenings a week all winter, and she stands at the head of her class."

2. Habitual loss of sufficient and healthy sleep. In a New York academy, a class of sixty girls between the ages of twelve and eighteen, chanced to be asked by a recent visitor for the time they retired the night before. The average was found to be twenty hours before midnight; but no surprise was manifested by teachers, nor regret by the scholars.

3. Irregularity and haste in taking food, the use of confectionery in the evening, and the omission of breakfast. The principal of a large girl's sch[illegible]hiladelphia lately said, that so many h[illegible]bitually came to [illegible]ol without having sufficient breakfast, and taking little or [illegible]o lunch, that he had been compelled, in order to obtain good mental work, to have a warm lunch furnished, and to insist upon every scholar taking it in the middle of the morning.

4. Tight, heavy or insufficient clothing, which frightfully increases the tendency to consumptive and spinal diseases. A physician of wide experience confidently states that this cause alone has incapacitated more women than over-study and overwork of all kinds.

5. The lack of sufficient out-door exercise. When a proper amount of time is devoted to such exercises, no time will be left for over-study.

6. The ambition of parents and daughters to accomplish much in little time, which sends students to college either hur-

riedly and imperfectly prepared, or with a thorough preparation gained at the expense of health.

7. The usual postponement of instruction in the laws of physiology and hygiene to a college course. The Association recommends the introduction of a thorough course of physical training, with special instructors and lectures on the subject.—[*Pacific Med. and Surg. Journal.*

OIL OF EUCALYPTUS IN MIDWIFERY PRACTICE.—Dr. Samuel Sloan, Obstetric Physician to the Glasgow Maternity, recommends the use of the oil of eucalyptus in midwifery practice. He has found it to possess, as an antisptic, the following advantages:

1. It is non-poisonous.
2. In the quantity and strength required it is unirritating.
3. It does not coagulate the lochia, which, by separating the lips of the vulva, can be seen to flow out in a liquid stream.
4. Its odor is with rare exceptions, a pleasant one.
5. It seems to act as a uterine stimulant, causing and assisting to maintain uterine contraction.

Formed into a pessary of a suitable shape and size it is easily applied to the neighborhood of the os, and retained there. To secure this, the pessary must be broad and short, must melt slowly but completely, and must contain a large percentage of the antiseptic oil. These requisites he has found the following formula to supply: Oil of eucalyptus, six drachms; white wax, four drachms; cocoa butter, four drachms; mix and divide into twelve pessaries. One of these must be applied night and morning immediately after the usual sponging, and, though the napkins are frequently changed, the odor will be quite perceptible on the one removed prior to the next sponging, twelve hours later. In cases of miscarriage, or when the lochia has diminished materially in quantity—say, six days after confinement—he has found the above strength produce irritation, and the following will then be found preferable: Oil of eucalyptus, four drachms; white wax, one hundred and sixty grains; cocoa butter, four drachms; divide this mixture into twelve pessaries and label them No. 2. These may also be used at first night and morning, and afterwards at night only. These pessaries are made by first melting together the wax and cocoa butter in a vessel resting in hot water; the oil of eucalyptus is then mixed

with this, and the fluid poured into the ordinary two-drachm pessary mould, each cavity being somewhat more than half filled. He has never been able to satisfy himself that the eucalyptus was absorbed into the system to any material extent. This is probable, however, and in one case seemed to be proved. This was a case of severely ruptured perineum, which was stitched and united throughout. The pessaries had been continued for sixteen days, when an erythematous rash appeared over the whole body, disappearing immediately on the cessation of the eucalyptic treatment. Though uncertain as to the fact of a material absorption of the oil into the system, he is persuaded that the oil does not remain at the os, but freely passes into the cavity of the uterus. For it is admitted that the uterus for several days after labor is naturally in an alternate state of contraction and relaxation, and while during contraction it will empty itself, during relaxation again whatever is lying at the os, or upper part of the vagina will be sucked into the vacuum produced. The eucalyptus will therefore find its way quite into the uterine cavity. When he said that, with rare exceptions, the odor is agreeable, he referred to a decomposition of the eucalyptus oil which sometimes takes place, giving the napkin a semi-fetid odor. That this does not arise from a change in the lochia he has proved by simply omitting the next pessary when due; he then found that the lochia was absolutely sweet.—[*Lancet.*

LARYNGOLOGY.

VARIETIES OF STAMMERING.—Boissier de Sauvages gives eleven varieties of stammering.

1st. Stammering proper—Psellismus ischnophonia.

2d. Thickness of pronunciation—Iotacismus.

3d. Bad pronunciation of the letter L—Psellismus lambdacismus.

4th. Lisping—Psellismus traulotes.

5th. Traulismus—Psellismus balbuties.

6th. Difficulty in pronouncing labials—Psellismus mogilalia.

7th. Stammering from metallic poisons—Psellismus metallicus.

8th. Difficulty in pronouncing the gutterals—Psellismus iotacismus.

9th. Speaking through the nose—Psellismus nasitas.

10th. Difficulty in speaking from hare-lip—Psellismus logostamatum.

11th. Difficulty of speaking due to ranula—Psellismus a ranula.

It is easily seen that Sauvages did not confine himself to stammering proper, but included every variety of embarrassment of speech, due to any and every cause.

Columbat gives two classes:

The first class bearing a striking analogy to chorea, he has called *labio-choreic.* There is a kind of chorea of the lips, and a more or less rapid succession of convulsive movements executed by the tongue, the lower jaw, etc., etc. In this variety there is a disagreeable repetition of consonants, as bbbb, tttt, qqqq, mmmm, etc.

The second class, guttero-tetanic, is characterized by a kind of rigidity of all the muscles of aspiration, principally those of the muscles of the pharynx and larynx. This kind of stammering is especially noticeable in uttering the gutterals, c, g, k, q, and the vocal sounds, a, a, e, e, i, o, ou, an, on, and in, is always accompanied by painful efforts at articulation, and is specially distinguished by certain intervals of silence, by immovability of the tongue, by constriction of the glottis, and a species of momentary suffocation, occasioned by constriction of the muscles of the larynx, and approximation of the lips of the glottis.

The distinguishing characteristic between guttero-tetanic and labio-choreic stammering is that in the latter varieties the persons affected are lively, nervous and ordinarily speak very rapidly without seeming to make any effort at articulation, until arrested by repetitions of bbb, qqq, ttt, etc. whereas, in the guttero-tetanic variety, on the contrary, they speak slowly without being able to express themselves, but always making efforts to articulate the rebellious syllables.

Labio-Choreic stammering presents four varieties:

1st. Loquacious labio-choreic stammering with sputtering or jabbering. Persons thus affected are lively and petulant in character, speak rapidly, are never at a loss for a word, and have no moments of silence, although they stammer on nearly every syllable, and add to their stammering the vice of speech called "sputtering," a confused pronunciation of the words with such rapidity that they are separated and articulated in half. This

variety is very common. Columbat observed seventy-three cases.

2d. Deformed labio-choreic stammering. Characterized by grimaces and convulsive movements of the face, eyelids, forehead, brows, nose and lips. Sometimes intermittent, is comparatively easily cured, and less likely to recur.

3d. Mute labio-choreic stammering, or stammering of women, is characterized by convulsive movements of the tongue, lips and lower jaw, but the repetitions, as of bbb, ppp, ggg, are not heard. It is one of the most difficult to cure—14 cases.

4th. Lingual labio-choreic stammering is recognized by the projection of the tongue out of the dental arcade.

Guttero-tetanic stammering presents six varieties:

1st. Mute guttero-tetanic stammering. Sound is produced only after several successive noiseless aspirations—19 cases.

2d. Intermittent guttero-tetanic. It may come on only at long intervals, the sufferer being unable, during the attack to utter a single word, but speak with perfect ease when it passes off. Frequent—48 cases.

3d. Choreiform guttero-tetanic. Characterized by choreic movements of the head, arms and legs, noticeable only during an effort at speaking.

4th. Canine guttero-tetanic. So called from the broken repetitions which resemble the barking of dogs.

5th. Epileptiform guttero-tetanic. Characterized by contortions, spasms of the muscles of the chest, the abdomen and neck, of the lower limbs and sometimes of the platysma myoides.

6th. Guttero-tetanic stammering with baryphonia. Almost always due to an affection of the head.

Finally, Columbat gives mixed guttero-tetanic, in which there is a mixture of two or more of the others.

Violette objects to the guttero-tetanic, there being never tetanus or contractions of the laryngeal muscles, but only convulsive movements. He thinks that the name should be guttero-convulsive.

The first four varieties of labio-choreic stammering correspond to what Bonnet calls difficulties dependent on vicious movementsof the larynx. He regards the movements of the lips subordinated to the difficulty of certain movements of the tongue. The theory is entitled to higher regard inasmuch as the knowledge

of the convulsive movements of the lips does not furnish a single therapeutic idea, while that of the tongue leads to the true curative indications of certain varieties of treatment.

The third and fifth varieties of guttero-tetanic stammering are identical, and the sixth should be stricken out, being rather a symptom than a true stammering.

Deleau recognizes three kinds of stammering:

1st. The first variety is due to vicious habits contracted in early childhood, as thickness of speech, ladubdacism, hottentatism, and other vices of pronunciation consisting in a sound badly articulated or substituted for another.

2d. Stammering due to organic lesion, or continuous stammering as observed in apoplectics, paralytics, idiots and persons with some lesion of the organs of speech—as of the tongue.

3d. That variety having for a near cause an infirm will; an incomplete cerebral action; or a nervous influx insufficient to direct the organs of speech in a proper manner.

This last constitutes stammering proper. Of this Delau gives three species.

1st. Lingual or Loquacious Stammering.—Persons thus affected repeat the words several times very rapidly. It is the tongue only which, by its disordered movements, constitutes this species.

2d. Labial or Deformed Stammering.—These persons seem unable to work the mouth. They give out a suppressed speech resembling more a roaring or bellowing than the human voice. They contract the muscles of the face with violence, alternately raise the commissures of the lips and roll their eyes.

3d. Painful or Mute Stammering.—Characterized by difficulty, or even impossibility of making any sound, in spite of the great efforts of the muscles of the chest and the diaphraghm. The opening of the glottis is so contracted that respiration is momentarily suspended.

Causes.—Sauvages places stammering among the dyscinesiæ diseases of which the principal symptom is debility, diminution or suppression of muscular movement in the organs controlled by the will.—[*N. C. Med. Jour.*

MATERIA MEDICA AND THERAPEUTICS.

COUNTER-IRRITATION.—Of all therapeutic measures, there is

probably no single one so universal and so potent in its application as counter-irritation. The disputed point, as to whether it produces its results through the agency of the nervous or the circulatory system, has no practical interest for the busy physician. He has but little time for theories or physiological experimentation; what he most desires are facts and results. In counter-irritation he has them both; it *can* and it *does* cure. It matters but little in kind, but greatly in degree, what counter-irritation is used. When we desire a profound impression, as in the initial stage of asthenic pleurisy, nothing short of a fly blister, and a big one at that, one that will cover the whole affected side, will do any good. A mustard plaster, under such circumstances, will be like a child playing at war, as compared with real battle. Whereas, when we meet an asthenic type of the same disease in a weakly and debilitated individual, the violent fly blister would be too powerful, and resort must be had to the gentler mustard. Much undeserved odium has been cast upon counter-irritation, as upon many other therapeutic measures, because of inferiority in quality of the article used. We have used half an ounce of cantharidal collodion with the result of merely soiling the part to which it was applied, in did not even *redden* the skin, while half a drachm of a good article, applied to the same part on the same person, blistered most terribly.

Many object to counter-irritation of a severe character, on the ground that it produces an external sore that is sometimes very hard to heal. That this is true, no one can doubt. It does sometimes happen that very tedious and painful abrasions of the skin or sores, do result from fly blisters or tincture of iodine or some other equally powerful counter-irritant. But these are the exceptions and ought not to militate against the rule, which is, that this form of treatment is an exceedingly valuable one in nearly all affections of an inflammatory nature. A large volume could be written on the different counter-irritants, and the great value of counter-irritation, but it is not our purpose to do more than merely call your attention to the matter. Every physician must wisely judge what cases are suitable for this form of treatment and what articles are appropriate to the effect desired. But remember, that while it will be all very well to resort to internal medication, counter-irritation *can do no serious* harm, and it will oftentimes amazingly aid the action of your drugs.—[*Med. and Surg. Reporter.*

ALARMING SYMPTOMS RESULTING FROM EIGHT GRAINS OF POTASSSIUM IODIDE.—While a few cases have been reported of dangerous symptoms following the administration of medicinal doses of potassium iodide, the number is not so large as to make the following case of no interest:

Miss K., a well-developed unmarried woman twenty-eight years of age, consulted me because of a swelling of the right parotid gland. The enlargement was small. On discovering a slight scaly eruption on the scalp, I ordered a mixture containing eight grains of potassium iodide in each dose; the mixture was composed of the iodide, syrup and water. One dose of the medicine was taken at 8 P. M. In less than an hour disagreeable symptoms appeared about the mouth and throat; these increased in severity and new ones were added. At 11 o'clock, three hours after the medicine was taken, I saw the patient; found the symptoms alarming; the pulse was 60 and full; the axillary temperature 96°; face pale; slight œdema present over nearly the entire body. The face was markedly œdematous, especially the upper eyelids, which were so swollen as to render opening the eyes impossible. There was an abundant secretion of viscid saliva, from which the mouth was cleared with great difficulty. The mucous membrane of the nose was so swollen as to make it impossible to force air through the nasal passages. The lips, tongue, uvula, and soft palate were all greatly enlarged. There was nausea but no vomiting, and much pain throughout the entire abdomen. Respiration was greatly embarrassed, apparently because of œdema of the laryngo-tracheal mucous membrane. The patient would every minute start up in bed, toss the arms wildly about in her struggle for breath. The articulation was so impaired that it was with difficulty she made herself understood. The hypodermic use of ¼ grain morph. sulph. greatly relieved the respiration. The hypodermic injection was repeated in three hours and the symptoms of poisoning gradually disappeared, although at the end of twenty hours after taking the iodide, there was still great suffering, the eyelids presenting a greater swelling than I ever witnessed. In seventy-two hours all the apparent effects of the medicine had disappeared. As a matter of experiment, I gave this patient, one week after her recovery, *one grain* potassium iodide, and in two hours all the symptoms recorded above, but in a much less degree were present. These disappeared within twelve hours. A quantity but

little greater than the dose prescribed of the medicine, would have, I believe, destroyed the patient.—[J. R. Weist in *Am. Prac.*

SARATOGA WATERS.—The Extraordinary richness of Saratoga and its vicinity in natural mineral waters, is an interesting geological fact and an important one medically. The variety is so great that some one can be found of use in almost any chronic diseased condition. What is singular, exploration reveals waters of constantly diversified character. One of the most efficient of all, the Hathorn spring, was discovered as late as 1868. It is a saline, alkaline water, of very positive therapeutic action, something like the old Congress water, but more efficient. It is believed to contain some lithia, and the reports of its action by medical observers entitle it to rank high among our native medicinal beverages.—[*Med. and Surg. Rep.*

PROFESSIOVAL RESPONSIBILITIES IN THE ADMINISTRATION OF OPIUM.—It is a matter of general observation that the number of persons addicted to the opium habit, has very greatly increased in this country since the introduction of the hypodermic method into medical practice. The escape from pain is so easy by this method, and the disturbance of the stomach is so materially lessened, that the extent and frequency of the exhibition of morphia has been greatly multiplied. The proportionately large number of persons in every community who have acquired the opium habit, is known only to physicians. In almost every case it will be found that the fascination came on under the hypodermic administration of morphia. In many instances the syringe has been left in the house by the family physician, and some member of the family instructed as to its use. Self-administration once instituted can rarely be controlled or discontinued. It is well known too, that the ecstacy of morphia exhilaration is of a very refined order, and few persons can resist the charm developed by its frequent repetition. Physicians should have these facts in mind while managing those cases of disease and injury necessitating a prolonged exhibition of opium, and especially when using the hypodermic syringe.—[*Louisville Medical News.*

Correspondence.

Article LXXIII.

Death by Lightning.

Editors Journal:—Though death by lightning is common during our summer months, yet such cases are seldom reported. An article in the October No. of the Journal, calls to mind, a case I saw some six or seven years ago. Sometime before sundown, that evening, a cloud came quietly up from the East. As it neared the zenith, a bolt fell earthward, exhausting the electricity of the cloud, in one fell discharge. The thunder was terrific! I was fully two miles distant; but it seemed the most tremendous explosion to which I ever listened. My wife, who was standing in our door, one mile and a half away, was completely blinded, for a moment, by the flash, and a boy half a mile from where the bolt fell, was thrown from his chair to the floor, and other members of his family were stunned. The lightning struck a man who was driving his cows across a small prairie, on horseback. He was leisurely riding along, in common farmer dress, blue blouse, overalls, straw hat, and a clay pipe in his mouth. Unwarned—death fell from heaven, and he and the horse lay "side by side!" The charge struck him on the forehead passed downward to his thighs, then through the horse to the ground. His body was unscarred—save a few powder-like marks on the forehead; but the clothing was completely torn from his body, except a few shreds which hung around his boots, and he lay naked against his horse, unheeding the pitiless rain. His heavy clothing was torn into minute fragments, and scattered over a radius of three or four rods. So fine were the fragments, that they resembled the contents of a mouse-nest, and his pipe was almost pulverized. His hat lay several rods distant, completely riddled with minute holes. The horse had a few singed hairs, where the charge had left the rider's thighs; but otherwise was unmarked. I carefully examined the body and found that no bones were broken; but the muscles were

intensely rigid; so much so, that it was almost impossible to place the body in a coffin. What particularly struck me was that while his clothing was torn into minute fragments, the body escaped injury.

My motive in penning this article, is to awaken the attention to the subject, and learn from those best posted, the most successful treatment. During our summer months, every weekly paper records deaths, or injury by lightning; yet our best medical works fail to specify any treatment, and physicians are "all at sea," when called to a patient struck by lightning.

A. K. VAN HORN, A. M., M. D.

Yellow Creek, Ills.

Editorial.

Article LXXIV.

IODOFORM.

We insert the following translations as a fit accompaniment of the article on the same subject from Dr. Prince, on another page. In the July, August and September numbers of the *Revue de Chirurgie* (Paris), Dr. Rohrer, of Nancy, (France) ha spublished an exhaustive review of the use of iodoform in surgery, quoting all the accidents that have been reported, which are very few in number. The following are his conclusions:

1. Iodoform, locally employed, is a specific against local fungous growths. It destroys the fungous granulations which are then eliminated under the form of a yellow, thick and creamy pus. As long as it remains in contact with the wound it generally prevents the formation of new fungosities. Its action is seen when it is placed in contact with the fungosities. It is not to be denied that there is a feeble action when not in contact.

After the removal of the fungosities, vigorous granulations capable of forming cicatricial tissue, form under the influence of iodoform.

2. It is well, before the application of the medicament to abrade the fungous surfaces; the cure is effected in a shorter time. This abrasion is not absolutely necessary, but in fungous cases the removal of the bone ought to be extended to the sound substance because the action of the iodoform would otherwise be injured by the spicules of the bony framework.

When a wound, under the influence of iodoform, has been denuded of its fungosities, it, as a rule, produces a serous pus and is almost always free from complications.

3. For wounds of all kinds, iodoform is the most sure antiseptic because, owing to its feeble solubility in the liquids of the organism, it remains a long time on the wound and continues to manifest its antiseptic action.

4. Iodoform applied in moderate quantity to a wound is

harmless to the organism. As it becomes in part absorbed it is eliminated by the kidneys. In certain enfeebled organisms, the passage through the general circulation may be of great utility

5. The first influence of iodoform upon wounds, is to assuage. pain; later, it reduces to liquid the disintegrated granulations and prevents, in a remarkable manner, the occurrence of septic complications.

6. The progress of wounds, in most cases, is free from fever; in other cases, an elevation of temperature is observed for a few days but without a septic cause.

7. Iodoform spread upon the lips of wounds does not hinder union by the first intention.

8. With an iodoform dressing, as with other dressings, it is necessary to secure the escape of liquids. The filtration of the secretions through the dressing does not deprive it of its antiseptic character.

An elevation of the temperature during the later period only indicates the retention of liquid and imperiously demands a removal of the dressing in order that the wound may be examined.

When the febrile symptom disappears during the course of cicatrization, the removal of the dressing as often as it becomes soiled, is a measure of cleanliness, but is not absolutely necessary.

9. With the iodoform dressing no irritation of the wound is observed.

10. Iodoform is such a powerful antiseptic that all others can be placed in the list of adjuvants.

For irrigation, pure water is sufficient. Antiseptic solutions are not absolutely necessary. Clean hands, clean instruments, delicacy of manipulation and quietude of parts should not be neglected.

11. Of all the antiseptics known up to this time, iodoform is the cheapest, the most durable and the easiest of application. The appliances for its application are found everywhere.

The powder as well as the iodoformed gauze can be preserved without losing, the least in the world, their efficacy.

12. Iodoform permits antiseptic applications in the mouth, in the rectum and around its orifice, as well as in the bladder,

and consequently in cases of surgical intervention, where hitherto one could scarcely expect a complete antisepsis.

And now that we have finished this study, what career shall be predicted for iodoform? Some have placed it above everything hitherto known—above the Lister dressing itself. Moleschott does not fear to predict for iodoform, the most brilliant career. On the one hand the reserve and we may say the fear with which this substance has been employed in French surgery; on the other hand, the laudation which it has received on the other side of the Rhine, may perhaps justify the prediction of an ephemeral course. French medicine and surgery, says M. Dentu, in his article already quoted, had designated, a long time ago, the limits of the employment of iodoform.

Lister had formulated his method. Pasteur had given it a scientific consecration. Practice verily may change, but principle remains. And now appear in the German horizon, other specifics destined to replace iodoform: salycilic acid, naphthaline, etc.

Ignis fatuus! says one, in view of the marvelous products which appear and speedily disappear. No; it is simply a step further on, a continual achievement in surgical progress, which in ten years has made the steps of a giant. Antisepsis will always remain the great principle of true surgery; principles remain, the details of their application may vary.

ARMY MEDICAL MUSEUM AND LIBRARY.

We copy the following from the last report of the Surgeon General U. S. A., C. H. Crane, and think that all physicians interested in the advancement of medicine should use their utmost endeavors to further this recommendation.

The Surgeon-General says: "The great necessity for a fireproof building suitable for the proper accommodation of the Army Medical Museum collection and Library grows, yearly, more imperative.

"The present building is overcrowded and unsuitable for the purposes intended, while its general insecurity against accident and fire, places in extreme jeopardy collections, which if

destroyed, would be an irreparable loss not only to the United States, but to the world.

"The Museum has attained a world-wide celebrity; is second to none in the number and value of specimens illustrating militar surgery and the diseases of armies, while its sphere of practical usefulness to the medical profession of the country is unlimited.

"It is therefore hoped that Congress may be induced to appreciate its great value and importance and provide for the fire-proof building required to place the collections beyond the chance of loss or injury."

We sincerely hope that this very reasonable request will be accorded without the least hesitation.

Reports on Recent Progress in Medicine.

Article LXXV.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Herpes of the Hands as a Menstrual Eruption.—The *American Journal of Obstetrics and Diseases of Women and Children*, Sept. 1882 gives the following taken from the *Centralbl. f. Gyn.* No. 17, 1882. Patient unmarried, thirty years old, has always had difficult menstruation from her fourteenth year; in 1873 had inflammation of the internal genitals, after which, to 1880, she was perfectly well except a deep-seated pain in the right side. At the end of 1880, patient came into authors' (Janovsky and Schwing) treatment on account of renewed, severe difficulty of menstruation. Right-sided ovaritis was diagnosed and greatly benefited by treatment. In April, 1881, on the second day of menstruation, a skin affection began on both hands, accompanied with sharp burning and itching and slight constitutional disturbance. On the palmer surface of both hands, especially the left, the skin was red and swollen. This was limited strictly to the palmar surface and bounded by the wrist-joint, the tips of the fingers, and the middle line between palmar and dorsal surfaces. The diffuse swelling lasted one and a half to two days. On the then paler skin little vesicles appeared, as large as pin-heads, isolated, or only in parts confluent. Gradually they filled up, their contents became purulent, they dried into crusts and dropped off. The whole process, which is quite severe, lasted a month. Four menstruations passed without its recurrence. In September it came on again, much lighter, again more marked on the left hand. This lasted two weeks. At the last menstruation only the left hand was affected. For five periods it remained away, and in May of this year again appeared, and again especially on the left hand.

The eruption is a *herpes*. There was no herpes of any of the membranes and no neuralgia accompanied it. The authors have

seen many exanthemata connected with menstruation, and especially a symmetrical erythema papulatum on the flexor surface of the upper and lower extremities, and in this connection they consider the present case of interest.

THE NERVES OF THE SKIN.—Dr. A. R. Robinson, of New York, made a communication on this subject at the last meeting of the American Dermatological Association. He presented a number of microscopic sections illustrating his views.

He believes that non-medullated nerves form plexuses both within the skin and epidermis; in neither situation did he find the nerves ending with free extremities. The majority of the medullated fibers pass into the papillæ and form loops, the fibers returning either into the coriun or into neighboring papillæ.

In describing the structure of the tactile corpuscles he declared that the striated appearance depends upon the nerve fibres and upon the neurillema. This was proven by the action of a weak solution of caustic potash upon gold specimens. He reviewed the evidence in favor of the corpuscle representing only a nerve plexus, basing his view upon the following facts:

1. Medullated nerve fibers, not connected with tactile or Paccinian corpuscles, form loops within the papillæ.

2. Non-medullated nerve fibers form loops and plexuses within the papillæ and epidermis, and probably do not terminate by free extremities.

3. In the majority of tactile corpuscles two nerves can be observed to be in connection with it; the one at the base, and the other generally at the upper part.

4. Instead of a single medulated fiber at the upper part there are sometimes two medullated or two or more non-medullated.

5. That the nerve entering at the base can often be seen winding upward toward the apex and forming the transverse striæ which color in gold.

6. That the nerve within the corpuscle generally retains more or less of its medullary sheath, and rarely divides in this situation.

7. The complete absence in many corpuscles of any irregularity of contour of the fiber; hence absence of any stricture resembling the end-buds of Langerhaus.

8. The nerve fiber in connection with the transverse striæ

which appear to come from the winding upward of the afferent nerve.

ERGOT IN SKIN DISEASES.—At the same meeting D. C. Heitzmann, of New York, said ordinarily he was not disposed to be enthusiastic with regard to the use of remedies, or the efficiency of drugs. However, he had noted such good results from the employment of fluid extract of ergot that he felt warranted in bringing it to the notice of those present. In certain forms of acne, especially the large pustular variety of the beard, he is accustomed to employ it with Hemingck's solution locally. Perhaps five or six per cent. may be set down as incurable, but the rest will be benefited by these remedies. They may have a tendency to return, but may again be treated successfully in the same manner.

The next disease is rosacea in both of its forms, but especially in cases marked by the dilatation and new formation of vessels. In these ergot had such good effects that he extended its use to other diseases of the skin. In psoriaris it was employed with no effect; and in several cases of eczema with no better result. In erythema, urticaria, and pruritus, however, the effect was very marked. A gentleman with chronic urticaria was completly cured by a few half-drachm doses. Although he had used the remedy freely, and had found a few who objected to the taste and refused to take it, he had not seen a single bad effect from the remedy.

THE "PAINTED SICKNESS" OF MEXICO.—In the *New York Medical Record* is given a description of a curious skin disease recently described for the first time by Dr. Dryz, of Mexico. It is known as *Mal de Pinto* "painted sickness." It is endermic in Southern Mexico and Central America. It is contagious, characterized by abnormal pigmentation, itching and desquamation, a peculiar odor and peculiar sensation to the touch. There are no constitutional symptoms. It has a chronic tendency and may last for years. It is curable under treatment and sometimes ceases spontaneously.

The pigmentation spreads from a central starting point, is asymmetrical, and may be either discrete or confluent. There are four different varieties described: black, blue, red, and white. In the first two it is superficial, involving only the epi-

dermis; in the other two forms the dermis and rete-mucosum are affected.

The black and blue varieties often co-exist; the affected part becomes somewhat raised, and though dry at first, becomes eventually moist and gummy. There is neither pain, tenderness nor sign of inflammation. The white and red varieties often co-exist; the affected skin is hard and condensed and has apparently lost most of its capillaries. Islets of dark pigment are sometimes found in the light-colored patches. In some cases the patient's hair as well as skin, becomes perfectly white, which is more marked than in vitiligo.

The dark patches spread more rapidly than the light ones. The odor is peculiar and resembles, to some extent, that from moldy garments. Treatment consists in attention to hygienic conditions and large doses of arsenic.

HYPODERMIC INJECTION OF IODOFORM IN SYPHILIS.—Dr. Ed. Thomann, of Gratz, publishes (*Centrlbl. f. d. Med. Wissenschaften*) the results he has so far obtained by this method. The solution contained twenty parts of glycerine to six of iodoform, of this he began to use a dose corresponding to 0.30 grms. iodoform and increased to 0.75. He also employed a solution of 0.30 grms. iodoform in 6 ctm. sweet almond oil. He took cases in which the inguinal glands had commenced to enlarge greatly, there being also decided induration. After ten or twelve injections in different parts of the body, had been made he observed a gradual disappearance of all signs. The experiments of Binz and Hogyes on animals were confirmed. The injections produced no pain and the local symptoms were not as severe as those following injections of corrosive sublimate.

Within two hours the remedy could be demonstrated in the urine. The observations were made in the clinic of Prof. Lipp. Should the experiments prove lasting and uniform we might at last possess a remedy by which "to prevent the poisoning of the system by lues, and the method would be indicated as soon as the slightest induration of an inguinal gland should denote the beginning absorption of the syphilitic material," adds the *Medical and Surgical Reporter*.

PURPURA HEMORRHAGICA VARIOLA.—J. L. Cleveland reported the following instance of complications of variola to the Cincinnati Academy of Medicine (*Lancet and Clinic*, Sept. 16, 1882):

July 30th he was called to see a girl, aged 12, who did not seem to be seriously sick the temperature being 101° and pulse, 100. A history of malarial fever was given. There was no change until the third day when a few papules had developed on the face and back. The face and conjunctivæ were congested as though the eruption was going to be thick. On the back the papulation was irregular, and some of the papules were vesicular and resembled chicken pox. The symptoms seemed mixed, although varioloid was expected to be developed in a few days. Nothing alarming had as yet presented itself.

On the fourth day the patient had rested badly during the night, and had suffered with distressing nausea. She was uneasy and tossing about the bed; the respiration was sighing and labored. The skin was of a dark, sodden, scarlet hue, deeper colored in the face and body than on the extremities. There were bluish black hemorrhagic spots all over the body. These varied in size, some few splotches of irregular shape being as large as the finger nail, and small round spots under the conjunctiva. The tongue was swelled and was so anæmic that it looked almost white, and along its side was the impress of the teeth; temperature 103,° pulse 100 and full, expression anxious.

The patient rapidly succumbed and died the same day. The papules had entirely disappeared and the skin was smooth to touch.

A REMEDY FOR EPHELIS.—Collodion containing about ten per cent. of its weight of sulpho-carbolate of zinc has given excellent results, (*Bul. Gen. de Thér.*) and is not accompanied by the dangers attendant upon the use of corrosive-sublimate which is so commonly employed in the form of lotions to do away with freckles. The following formula is said to be a good combination:

Sulpho-carbolate of zinc,	1 part.
Collodion,	45 parts.
Oil of lemon,	1 part.
Absolute alcohol.	5 parts.

The sulpho-carbolate of zinc should be thoroughly reduced to a fine powder and then added to the solution and be well incorporated.

We have occasionally obtained good results by mixing equal parts of lemon juice and spirits of alcohol and applying to the affected parts.

THE CONTAGION OF LEPROSY.—Probably no disease has so excited the fears of mankind and the attention of physicians throughout all historic time as leprosy, for no other has produced such hideous deformity of the individual or protracted a termination so uniformly fatal through such prolonged periods of moral suffering; none has spread itself more widely at different epochs among all nations, or has left so marked an impression upon the record of their social and religious laws.

In the *American Journal of the Medical Sciences* for October, 1882, Prof. James C. White contributes a valuable paper in which he traces the origin of this disease in the Hawaiian Islands, New Brunswick, Cape Breton and the United States. In the study of the disease observed in these various localities he finds evidence that it is communicable from man to man by direct transference, or facts which can be interpreted in no other reasonable way, and this conclusion he accepts as supported by the general history of the affection in past times as related by medical chroniclers. He accordingly feels justified in forming the following conclusions: Leprosy has spread under recent observation, when introduced into a previously unaffected stock, in so rapid and general a way as to prove that it may diffuse itself universally through a nation independently of the action of hereditary tendencies. There is no evidence to support the assumption that this wide and quick extension of the disease has been caused or aided by any peculiarities of soil, climate, diet or other telluric agency in Hawaii. The history of the affection, on the other hand, leads to the strongest conviction (scientific proof is wellnigh out of the question) that it is communicated directly from person to person, while the peculiar customs offer a satisfactory explanation of its unparalleled spread. The history of the little center of disease in Louisiana, watched fortunately from its very beginning, leads to the same conclusion that it affects persons not under any law of heredity but through the intimacy of personal relationship, the customs and morals determining largely the rapidity and universality of its spread.

As regards the bacilli of leprosy, Dr. White believes that there is nothing in the history or pathology of leprosy incompatible with the theory of its parasitic nature. Should a bacterium be constantly found in the disease, in the leprous tissue itself, most pronounced in that in process of development, presenting the same characteristic features in cases occurring in all

parts of the world, and not found in human tissues in connection with other diseases or in their healthy condition, it would constitute strong presumptive evidence that this parasite was the specific cause of leprosy. The proof would be positive if its inoculation were found to reproduce the disease. As yet, however, proof of this character has been merely negative. He is a strong advocate of the isolation of lepers.

A CASE OF ELEPHANTIASIS.—Dr. Thomas S. Harrison reports the following unique case, illustrated by two photographs, in the *American Journal of the Medical Sciences* for October, 1882. He had followed the progress of the case from infancy; now he is a man grown, of medium size and height. There is a difference of nearly seven inches between the two limbs; of this one and three-fourths exists between trochanter major and condyle; there is a difference of nearly two inches in circumference at the thigh, three inches and a half at the knee, and ten inches at the ankle (right 8 inches, left 18). The skin and cellular tissue round the left buttock are largely developed, so as to hang down the thigh, and encroach on and overshadow, the opposite buttock, covering the central fissure. Above the gluteal region, extending from the spine, beyond the lateral region, is another soft, flabby enlargement.

The enlargement is most marked in the dependent portions, at the ankle and lower part of buttock, and varies considerably in the erect or recumbent positions. This change is not rapid, but the size of the ankle is increased on prolonged walking, and the prominence of the buttock more marked after riding a reaper for several hours. The skin has not the harsh, rough feel, or the tuberculated fissured appearance, given as characteristic of elephantiasis. The tissue beneath the skin is soft, moves freely over the underlying muscles or fascia, does not pit on pressure, and has something the feeling of an extravasation in a particularly loose tissue, as the scrotum. The skin is hypertrophied, though smooth and soft; the growth of hairs on the leg greatly above the natural, both in length and caliber, the skin is mottled with dark brown spots and patches, from mere points to a width of from one to two inches. The thin delicate skin above the ilium is marked with purple blotches, looking like recent bruises, evidently caused by enlarged veins.

The inguinal glands and those on the thigh are considerably enlarged. The health of the patient is, and always has been good. He has never needed medical attendance, works steadily on the farm, and the only inconvenience he observes is that he tires after continued walking, especially over rough ground.

Book Reviews.

Article LXXVI.

A Clinical Hand-Book on the Diseases of Women. By W. Symington Brown, M. D., 8vo., pp. 247. (New York: Wm. Wood & Co., 1882.)

In this little work the author has endeavored to collect the best material he could obtain from old and new standard works, together with reflections of his own and illustrated by cases in practice. His aim has been not to write a recondite treatise but rather a useful hand-book from a clinical point of view.

The subjects treated of are well chosen and such as occur most often to the practitioner. He recommends Chadwick's table for purposes of examination. He speaks but of few specula, wisely refraining from burdening his pages with the description of a number of useless instruments. He very properly recommended full injections of *hot* water, adding that the tube ought to point *downward* so as to avoid entering the cervical canal. Whether this would prove effective in ante-version is subject to question.

Among the various subjects treated of, are venerial diseases which are disposed of in a very summary manner. As the index of a man's work and opinions on a certain subject, this is a good work and in that respect may be read with profit.

The mechanical execution is good, the book presenting a handsome appearance.

A Treatise on the Science and Practice of Medicine, or the Pathology and Therapeutics of Internal Disease. By Alonzo B. Palmer, M. D., LL. D. Vol. I., 8vo., pp. 903. (New York: G. P. Putnam's Sons, 1882.)

In this volume are included general pathology, general diseases and diseases of the organs of digestion and assimilation. The author treats his subjects in rather a summary way, although in a lucid manner, as could well be expected from one who has spoken upon them for years. A large number of diseases are mentioned in this volume and many needful and practical hints are interspersed throughout the subject matter. The

former students and listeners of Dr. Palmer, will readily recognize him in this work, as a great deal of his individuality is interwoven in it.

Works of this kind ought to be encouraged as this country is inneed of works on general medicine by its own physicians. We have too long relied upon foreign authorities, which however valuable they may be, ought not to supplant but rather supplement native authors.

Besides this the work under consideration possesses considerable merits of its own and may stimulate others to attempt to give further proofs of the existence in this country of physicians capable of writing good works on general medicine and thus establish our superiority in that respect as it has been in many of the specialties.

1. LECTURES ON DISEASES OF CHILDREN. A Handbook for Physicians and Students. By EDWARD HENOCK, 8vo. pp. 357. (New York: Wm. Wood & Co., 1882.) March No. Wood's Library of Standard Medical Authors.

2. MATERIA MEDICA AND THERAPEUTICS. Inorganic Substances. By CHARLES D. F. PHILLIPS, M. D. Edited and adapted to the U. S. Pharmacopœia. By LAWRENCE JOHNSON, A. M., M. D., Vol. II., 8vo., pp. 340. (New York: Wm. Wood & Co., 1882.) May No.

3. PRACTICAL MEDICAL ANATOMY. A Guide to Physicians in the Study of the Relations of the Viscera to each other in Health and Disease and in the Diagnosis of the Medical and Surgical Conditions of the Anatomical Structure of the Head and Trunk. By AMBROSE L. RANNEY, A. M. M. D., 8vo. pp. 339.) June No.

1. The author has for thirty-seven years been engaged in the treatment of diseases of children and has had unusual dispensary and hospital facilities in Berlin. This book is the result of his observations and the product of his personal experience. This being the case, we find as might be expected a very well written treatise, which cannot but be of great value to the physician who has to interrogate and treat the helpless infant, when it is entirely incapable of communicating with the outside world.

The book is divided into ten parts dealing with the diseases of the newborn, of infancy, of the nervous system, of the respiratory organs, of the circulatory organs, of the digestive organs,

of the uropoëtic organs, infectious diseases, constitutional diseases and diseases of the skin.

Although many diseases will be found omitted, the author acknowledges this want and justifies himself by saying that he has only endeavored to present such as were observed by him.

Throughout, the descriptions and treatment are given in a brief manner, so that without some previous acquaintance with the subject as much benefit could not be derived as if such information had been previously acquired.

2. The principal merit of this work is the amount of space devoted to the physiological and therapeutic action of the various remedies considered. As a rule our materia medicas are burdened with a quantity of matter but of little interest and of still less practical value to the physician; whilst our best works on therapeutics are so prolix that the average reader cannot and will not devote the time to a careful perusal.

3. Dr. Ranney has long since identified himself with anatomy and in this work he has adopted the term "medical" because he only deals with the head and the trunk, and the organs contained within the cavities of the thorax and abdomen. A considerable amount of interesting information is given and the volume, as a whole, is interesting and profitable reading.

In this we find reproduced the human face in health and disease and its value as a guide in diagnosis, the article having originally appeared in the *New York Medical Journal* and attracted quite an amount of attention at the time. It has, however, been considerably amplified and a number of illustrations added.

This volume is among the most interesting of the series that has so far appeared. The whole series of 1882 has been of an excellent character and reflects credit upon the publishers and upon the discrimination and power of selecting of the editor.

THE EXPERIMENTAL METHOD IN SCIENCE. Second Course of Cartwright Lectures of the Alumni Association, College of Physicians and Surgeons, New York, delivered Jan. 24 and 31 and Feb. 7, 1882. By JOHN C. DALTON, M. D. 12mo. pp. 108. (New York: G. P. Putnam's Sons, 1882.)

These three lectures have been widely published and read and now find a permanent shape in book form. Galvani and Galvanism in the study of the nervous system forms the subject matter of the first lecture; and Buffon and Bonnet in the eighteenth century and nervous degenerations and the theory of Sir Charles Bell those of the other two lectures. It is unnecessary to comment upon Dr. Dalton's literary and scientific merits.

ELECTRICITY IN SURGERY. By JOHN BUTLER, M. D., 12mo. pp. 109. (New York and Phila: Bœricke and Tafel, 1882.)

This is a very small work upon a very important subject which is every day gaining in importance. It is not long ago since electricity, as a means of diagnosis and treatment, was considered as only the instrument of charlatans for the purpose of gulling credulous victims. Its real value, however, has been recognized but it will require more systematic and complete treatises than this one to fully enforce its value and the true position it commands.

THE VEST-POCKET ANATOMIST, founded upon "Gray." By C. HERRI LEONARD, A. M., M. D. Eleventh Revised Edition, 24mo. pp. 82. (Detroit Illustrated Med. Jour. Co., 1882.) Price 75 cents.

That this is a popular little book can be inferred from the numerous editions through which it has passed. Almost every medical student has adopted it as his anatomical *vade-mecum* and barring a few errors, it is as compact book of its kind as may be found; but anatomy can never be learned from it.

Books and Pamphlets Received.

Article LXXVII.

The International Encyclopædia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery, by Authors of various Nations. Edited by John Ashhurst, Jr., M. D. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. II., 8vo., pp. 754. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

A Treatise on the Science and Practice of Medicine, or the Pathology and Therapeutics of Internal Diseases. By Alonzo B. Palmer, M. D., LL. D. Vol. II., 8vo., pp. 866. (New York: G. P. Putnam's Sons, 1882.)

On Asthma: Its Pathology and Treatment. By Henry Hyde Salter, M. D., F. R. S., First American from the last English Edition, 8vo., pp. 284. (New York: Wm. Wood & Co., 1882.) September No. Wood's Library of Standard Medical Authors.

The Treatment of Diseases by the Hypodermatic Method. By Robert Bartholow, A. M., M. D., LL. D., Fourth Edition revised and enlarged. 12mo., pp. 365. (Philadelphia: J. B. Lippincott & Co., 1882.)

A Practical Laboratory Course in Medical Chemistry. By John C. Draper, M. D., LL. D. pp. 71. (New York: Wm. Wood & Co., 1882.)

The Diseases of the Rectum, including Fistula, Hemorrhoids, Painful Ulcer, Stricture, Prolapsus, etc., with Diagnosis and Treatment. By William Allingham, M. D., F. R. S. Fourth Revised and Enlarged Edition, with illustrations, 8vo., pp. 168. (Philadelphia: P. Blakiston, Sons & Co., 1882.) Price: paper 75 cts., cloth $1.25.

Reseña del Primer Ejercicio del Instituto de Terapéutica Operatoria del Hospital de la Princesa por el Dr. Federico Rubio y Gali. 12mo., pp. 225. (Madrid: Enrique Teodoro., 1882.)

The First Bi-Ennial Report of the Michigan Free Eye and Ear Infirmary and Eye and Ear Department of the Michigan College Hospital, for the Two Years ending Sept. 31st, 1882. (Detroit: Geo. L. Davis, Printer, 1882.)

The Female Perineum. By T. G. Comstock, M. D., (Reprint from the *St. Louis Clinical Review.*)

Alcoholic Anæsthesia. By Lewis D. Mason, M. D. (Reprint from the *Journal of Inebriety*, Oct., 1882.)

Medical Encouragement for the Manufacture and Sale of Nostrums. (Reprint from the *Detroit Lancet*, Oct., 1882.

Transactions of the Medical Association of the State of Missouri at its Twenty-Fifth Annual Session, held at Hannibal, Mo., May 16–17–18, 1882. 8vo., pp. 220. (St. Louis: Commercial Printing Co., 1882.)

Tranfixion of the left Arytenoid Cartilage by a Fish-Bone; Loss of Motion in the corresponding Half of the Larynx; Abscess; Recovery. By John McKenzie, M. D., (Reprint from *Maryland Med. Jour.* Aug. 1, 1882.

Diphtheritic Ulcerations of the Air-Passages and its Relations to Pulmonary Phthisis. By John M. McKenzie, M. D. (Reprint from the *Trans. Med. and Chir. Faculty of the State of Maryland*, April, 1882.)

Tubercular Tumors of the Windpipe. Tuberculosis of the Laryngeal Muscles. A Contribution to the Pathological History of Laryngo-Tracheal Phthisis. By John N. McKenzie, M. D. (Reprinted from the *Archives of Medicine*, Oct., 1882.)

Annual Report of the Surgeon-General's Office.

News Items.

Article LXXVIII.

M. Hillairet, one of the most distinguished members of the Paris Academy of Medicine in the Section of Public Hygiene, and formerly Physician to the Hôpital St. Louis, died suddenly, in September, from the rupture of an unsuspected aneurism. His age was sixty-seven years.

There are now only nine States without Boards of Health, and Pennsylvania and Ohio are the only large ones among them. For shame!—[*Med. and Surg. Reporter.*

Missouri is small enough not to have one either, and it does not seem likely to get one in this century.

The Southern Illinois Medical Association will meet in Anna, Ill., on Wednesday, Nov. 15th for a two days' session. The profession is cordially invited to attend.

The Arkansas Insane Asylum.—This new Asylum, says the *Medical News*, of Aug. 12, will be ready for the admission of patients in January, 1883.

When no apparent cause for a child's dullness of action is known to exist, let there be made a thorough investigation into the condition of the acoustic organs before necessarily regarding it as a dunce or feeble-minded.—[*Sexton.*

Plica Polonica.—A report has been spread that the horrible disease known as the plica polonica has made its appearance in London, brought over by the traders in false hair from Poland. The disease is one of the most horrible kind, incurable, and rendering its victim an object as hideous to behold as the lepers of the East. The hair, instead of dividing into fine and silky threads, conglomerates into thick matter, with only one thick root, which bleeds on being cut, so that no relief can be obtained save by cauterization of the whole mass. The report has caused a greater scare than any produced by the Fenians.—[*Med. Record.*

DR. OLIVER WENDELL HOLMES has resigned the Parkman Professorship of Anatomy in Harvard University, to which he was elected thirty-five years ago, as successor to the late Dr. John C. Warren. It is understood that Dr. Holmes intends to devote himself entirely to literature.

NEW YORK POLYCLINIC.—A polyclinic has been organized in New York for the purpose of giving post-graduate instruction in clinical medicine and surgery, didactic lectures being excluded from their methods of teaching. A dispensary has been opened under the direction of the faculty. There will be five sessions of six weeks each, commencing November 7th. The faculty consists of Drs. Leaming, Ripley, Hudson, Elsberg, Gray, Brandeis, Robinson, Bronson, Fowler, Wyeth, Gerster, Mundé, Wylie, Gruening, Webster, Gibney, and Stillman.

MODE OF ADMINISTERING MALE FERN.—Herr Dietrich (*Pharm. Zeitung*) recommends as most successful the administration of the extract along with castor oil. He gives it in flexible capsules, each containing 1 gramme of the extract, and 2 grammes of oil. One dose consisting of six such capsules, preceded by a laxative, is found effective.

IN WADD'S *Nugæ Chirurgicae* (London, 1824) there is an account of one John Foy Vaillant, a physician of the early part of the eighteenth century. He was famous for his collection of medals, and so enthusiastic in this pursuit, that he is reported to have swallowed six ounces of medals to secure them from the Algerines, when once in danger of being captured; but the wind changing in his favor he got safely on shore. When beginning to be incommoded by his indigestible curiosities, he consulted two physicians who were puzzled by the singularity of his case. Nature however relieved him from time to time, and as he found himself in possession of his treasures, he explained with much pleasure to his friends those already arrived, as well as those he daily expected. A valuable Otho was the last that came to hand.—[*Canadian Jour. Med. Sciences.*

JAPANESE MEDICAL LITERATURE.—Two hundred and sixty-seven medical works were published in Japan in the Japanese language in 1881.

CHOLERA IN JAPAN.—During the ten days from August 21st to 31st, there are reported as having occurred in Yokohama and vicinity, 465 new cases of cholera, and 281 deaths. Total since commencement of the epidemic, 3265 cases and 2000 deaths. On the 30th of August, an American named Blass, was seized with the disease and died in less that twelve hours. He is the first adult foreign resident in Yokohama who has been attacked.

CHOLERA IN THE PHILIPPINE ISLANDS.—The cholera epidemic in the Philippine Islands, is still making fearful ravages, although the mortality is much less than it was a few weeks ago. At the beginning of this month the deaths in Manilla alone averaged 300 daily, and during the last two weeks there were 4,550 deaths from the disease in the province of Yloilo. The deaths at present number about 50 daily in Manilla, but reach the terrible total of nearly 200 in the surrounding country.

PATHOLOGICAL PRIZE.—The Pathological Society of Philadelphia. will award the sum of twenty-five dollars, or a gold medal, for the best pathological report, with or without specimens, read before April 1st, 1883, by any member of the Society, who at the time of presentation, held the position of hospital resident.

A MR. COOK, of Philadelphia, who died in 1846, in his will bequeathed six thousand acres of wild land near Foxburgh, Penn., to the Pnnsylvania Hospital and the Pennsylvania Institute for the Blind. For years these institutions have derived no income from the gift, and have been satisfied that it required no expenditure on their part. Oil, however, has been struck on the locality, and there are hundreds of applications for leases of the land. The property is now estimated to be worth from two to five millions of dollars.

M. DASTRES has forwarded a note to the Paris Académie des Sciences describing his researches in order to arrive at an explanation of the laws which determine the beat of the heart and its periodic variation. M. Marey has shown that cardiac excitability, which disappears during systole, reappears during diastole. The causes of these variations are:

1. Pressure of blood on the walls of the heart.
2. The action of the intracardiac nerves.
3. The action of the extracardiac nerves.

M. Dastres concludes, from his observations, that the period of repose observed after every systole and diastole is independent of muscular action, and is determined by the action of the intracardiac nerve-apparatus which regulates the beat of the heart.—[*Lancet and Clinic.*

THE best among the new journals which have appeared in October, is without doubt the *Journal of Cutaneous and Venereal Diseases.* It is a monthly of thirty-two pages of excellent and well selected matter and the initial number is embellished by a handsome chromo-lithograph and wood-cut. It will be an excellent supplement to the *Archives of Dermatology.* We are glad to see that the only two medical journals devoted to dermatology, in the English language, are American, and of such a nature as to worthily represent American dermatology. The editors of the new journal are well known, being Drs. Henry G. Piffard and Prince Albert Morrow. Messrs. Wm. Wood & Co. are the publishers and we predict a bright future for this, their latest publication, and hasten to put it upon our exchange list. The price is $2.50 per annum.

THE *Maine Medical Jomrnal* is an eclectic publication of twelve pages, monthly, issued by A. J. Marston at Lewiston, Maine.

THE *American Journal of Physiology* is an eight-page journal which enters the arena of medical journalism under the protection of Dr. D. H. Fernandez. It is published at Indianapolis, the subscription price being $1.50. per annum.

THE following brief testimonial to the memory of the late Dr. Anderson, was read before the St. Louis Medical Society, Sept. 30th, 1882:

As this society is called to mourn the loss of one more of its members, in the death of Dr. Richard S. Anderson, who died quite suddenly at his late residence on Easton Avenue, on Thursday the 21st inst., in the thirty-sixth year of his age, we deem it appropriate to record this brief sketch of the life and character of the deceased, as a testimonial of our regard for his memory.

Dr. Anderson was born in Virginia, and was the son of the late Rev. Dr. J. S. P. Anderson, a learned and eloquent minister of the presbyterian church of this city. Havimg enjoyed in

early life, ample opportunities, his education was liberal, and in 1862, he entered the St. Louis Medical College as a student of medicine, from which he was graduated in the spring of 1864, after which he visited Europe and passed nearly a year in the hospitals of London and paris.

On his return to St. Louis he gained a prominent position, especially among the junior members of the profession, and was esteemed by all as a young man of more than ordinary promise.

In 1865 Dr. Anderson was elected associate member of this society, which recognized and acknowledged his capacity for usefulness by electing him to the position of Recording Secretary in the following year, and to that of Corresponding Secretary in 1869, Treasurer in 1870 and to the Vice Presidency in 1881.

In 1869 Dr. Anderson became associated with the Faculty of the Humboldt Medical College as Prosector and Demonstrator of Anatomy; and in 1868 as Lecturer on Diseases of Children, and Demonstrator of Anatomy in the same institution; and in his scientific labors was intimately associated with the late Dr. Adam Hammer.

In 1870 he was elected to the chair of Anatomy, in the Missouri Medical College. This position he resigned in 1872 in order to accept that of Resident Physician at the Quarantine Hospital, to which he had been elected by the Board of Health and which he held until the hospital was closed on the first of January, 1876.

Dr. Anderson was widely known in this city, both in and out of the profession. He was the author of a number of papers, the last one entitled "An Inquiry into the Cause of the Rhythm of the Heart," was read before the St. Louis Medical Society, on the 6th of May last, and evinced marked clearness of thought and depth of research. He was possessed of a genial nature and gifted with many high social qualities, and while we mourn the loss of Dr. Anderson as of one whose life has been prematurely cut short, we bow in humble submission to the dispensations of an over-ruling Providence, and, forgetting his faults, seek consolation in the memory of his many noble qualities of mind and heart.

GEORGE LECLANCHE, the celebrated inventor of the galvanic cell which bears his name, died recently at the age of forty-three.

VOGEL, of Munich, says that the sting of the nettle and of the

bee or wasp are identical in character. This is explained by the fact that there exists in the sting of the animal, as in the spine of the plant, formic acid. In the bee it also serves to preserve the honey from fermentation.

THE oldest French physician, Dr. Dorin, has just died at Châlons-sur-Marne. In a few weeks he would have attained his ninety-fourth year.

MAN AND THE BACILLUS.—Dr. J. Milner Fothergill, in a letter to the Philadelphia *Medical Times*, referring to Koch's theory of the origin of tuberculosis, remarks, half jocosely: "Talk of the bitterness of death! It is nothing to the shadow danger which overhangs us of a tubercle-bacillus getting into one's pulmonary alveoli in an unguarded moment, and when one's 'resistive power' happens to be impaired. Shadowy in the sense of invisible, not unreal! Is this what is meant by 'the doom of a great city?' Is the bacillus a relative of the poison germ which slew Sennacherib's host in a night? We do not yet know the little creature intimately enough to say. But, really, the horrors which the mind conjures up of the dangers of the bacillus in the future are demoralizing. Suppose, now, that some change of the human constitution should favor the bacillus, just as the potato-field did the Colorado beetle, who had been happily quiet in his dietary of the leaves of the deadly nightshade, but who went on the war-path when the leaves of the Solanaceæ came within his reach. The imagination fails to conceive what may be the fate of man—to be slain by a foe more remorseless than any of the plagues of Egypt. Suppose, now, that the bacillus took such a new departure, and got ahead of our 'resistive power.' Why, man would be swept off the face of the earth! What an ignominious end, too! Man, in the plentitude of his power over the forces of his nature, slain by an insignificant little bacillus!—[*Mich. Med. News.*

THE WONDERFUL DISCOVERIES OF MICROSCOPISTS in the field of pathology and food adulteration are wittily commented upon in the *New York Times* and reproduced in the *Medical Record*. The author describes a dinner given to a number of microscopist experts:

"When the microscopists sat down to dinner, each one produced his compound oscillating microscope and carefully exam-

ined every article of food. Excited shouts went up as new discoveries of metallic, vegetable, and sausage substances were discovered in the soup. An examination made of the water resulted in the discovery of such an enormous quantity of infusoria, mammalia, and pachydermata that the microscopists unanimously refused to drink it. During the progress of the meal, much enthusiasm was aroused by the announcement of Prof. White that he had discovered a trace of hairpin in the beefsteak, thus upsetting the theory that the beefsteak of American hotels is a chemically pure carburet of sole-leather, and, at a later hour, Prof. Black's assertion—based on a thorough microscopic examination—that he had discovered whortleberries in the whortleberry pudding, and wine in the wine sauce, led to a heated discussion, in the course of which thirty-eight microscopists declared that Prof. Black was an ignorant and unprincipled pretender, and eleven others maintained that the Professor was acting in good faith, and that his discoveries could be accounted for on the theory that the waiter had given him by mistake a piece of whortleberry pudding made expressly for the landlord's private table."

THE following are the prize questions of the Acadèmie de Médecine proposed for 1883: (1.) The Academy Prize of 1000 francs, To Determine the Clinical Value of Antiseptic Procedures in Surgical Practice. (2.) The Portal Prize of 1000 francs, Is Tubercle of a Parasitic Nature? (3.) The Bernard de Civrieux Prize of 2000 francs, Hysterical Paralyses and Contractions. (4.) The Capuron Prize of 2000 francs, The Influence of Sea-bathing on the Scrofula of Children. (5.) The Barbier Prize of 2000 francs, to be awarded to whoever nearest attains to the Cure of Diseases hitherto reputed as Incurable—namely, hydrophobia, cancer, epilepsy, typhus, scrofula, and cholera. (6.) The Godard Prize of 2000 francs will be given for the best work on External Pathology. (7.) The Desportes Prize of 1500 francs, to be given to the author of the best work on Practical Medical Therapeutics. (8.) The Buignet Prize of 1500 srancs, to be awarded to the author of the best work, whether manuscript or printed, on the Applications of Physics or Chemistry to the Medical Sciences (the works of foreigners and translators cannot compete for this prize.) (9.) The Daudet Prize of 1600 francs, Lymphadenoma. (10.) A

prize of 2000 francs on the Hygiene of Infancy—"Exhibit by precise observations the part which the First Dentition may play in Infantile Pathology." (11.) The Vernois Prize of 800 francs will be annually decreed for the best work on Hygiene. (12.) The Amussat Prize of 2000 francs, to be awarded to the author of the best work of researches, founded both on anatomy and experiment, which shall realize or prepare the way for important progress in Surgical Therapeutics. (13.) The Stanski Biennial Prize of 1000 francs, to be awarded to whoever best demonstrates The Existence or Non-existence of Miasmatic Contagion by Infection or Contagion at a Distance. (14.) The Huguier Prize of 3000 francs, to be given to the author of the best work, whether manuscript or printed in France, on the Diseases of Women and their Surgical Treatment. (15.) The Saint-Lager Prize, a sum of 1500 francs, to be given to compensate the experimenter who has been able to induce a Tumor of the Thyroid Gland by the administration to animals of substances extracted from the waters or soils of countries in which Endemic Goitre prevails. (16.) The Saint Paul Prize of 25,000 francs will be conferred upon the person, without distinction of country or profession, who first discovers a remedy which the Academy acknowledges is efficacious and sovereign in Diphtheria. Awaiting the discovery of such remedy, the interest of the sum awarded will be expended every second year in "encouragements" for those whose researches on diphtheria appear to be meritorious.

AN EXHIBITION has just been given before some of the officials of the Fire Department of an English invention designed to prevent suffocation from sulphur and smoke in cases of fire, and the bad effects of foul air in mines and wells. The principle of the invention is, that the wearer of the apparatus breathes the same air over and over again; the carbonic acid being absorbed from it at each expiration, and the requisite amount of oxygen restored. The apparatus is carried on the back and consists of a strong sheet-copper cylinder, twelve inches by six and a half, with domed ends, and capable of holding four cubic feet of oxygen gas at a pressure of sixteen atmospheres. Above the cylinder and attached to its side is a square metal containing the carbonic acid filter. A flat bag of vulcanized rubber is fastened to the apparatus, and is connected by a rubber pipe over the shoulder with the outlet pipe of the filter.—N. Y. letter to *Boston Med. and Surg. Jour.*

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—SEPT., 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	66.0	71.0	18	73.0	92.0
2	59.0	72.0	19	73.0	85.5
3	60.5	81.5	20	62.0	65.5
4	63.0	78.0	21	51.5	62.5
5	63.5	76.5	22	47.5	69.5
6	64.0	78.0	23	46.0	72.0
7	66.0	77.5	24	51.0	71.0
8	64.0	73.0	25	52.0	73.5
9	64.0	78.5	26	52.0	71.0
10	62.0	79.5	27	50.0	70.5
11	58.0	74.0	28	55.5	72.0
12	59.0	81.0	29	60.0	73.0
13	67.5	89.0	30	58.0	77.0
14	70.0	91.0	31		
15	68.5	86.5			
16	68.0	90.0	Means	62.9	77.2
17	73.0	89.0	Monthly Mean.	70.0	

Quantity of rain, 1.44 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM AUG. 5, 1882, TO SEPT. 30, 1882, INCLUSIVE.

Small Pox..... 0	Childbirth..... 0	Convulsions & Trismus Neonatorum 75	Syphilis..... 5
Scarlatina..... 61	Inanition, Want of Breast Milk, etc. 29	Hydrocephalus and Tub. Meningitis. 11	Apoplexy 18
Pyæmia & Septicæ 5	Alcoholism..... 13	Meningitis & Encephalitis 49	Dis. fem. gen. org. 5
Erysipelas 4	Rheumat'm & Gout 1	Other Diseases of the Brain and Nervous System 36	Surgical Operation 1
Diphtheria 30	Cancer and Malignant Tumor.... 18	Cirrhosis of Liver and Hepatitis .. 27	Deaths by Suicide 15
Membran's Croup. 10	Phthisis & Tuberculosis, Pulmon 114	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 50	Deaths by Accid'ts 43
Whooping Cough. 23	Bronchitis.. 18	Bright's Disease and Nephritis...12	Deaths by Homicid 6
Still-born.....75	Senility 34	Other Diseases of Urin ary Organs. 8	Congen Defor'ty 66
Measles 10	Pneumonia..... 35	Dis. locom Organs 2	Total Deaths from all Causes.... 1352
Typhoid Fever....41	Heart Diseases.... 36	Unknown 1	Total Zymotic Diseases 534
Cerebro Spinal Fev 8	Other Diseases of Respir'y Organs. 25		Total Constitutional Diseases.....248
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers, 83	Dis. Integ..... 1		Total Local Diseases 413
Puerperal Fevers.. 7	Marasmus—Tabes Mesenterica and Scrofula..... 93		Total Develop'tal Diseases 102
Diarrhœal Diseas 211	Other Const. Dis. 11		Deaths by Viol'ce 54
Other Zymotic Diseases 4			

CHAS. W. FRANCIS. *Health Commissioner.*

Original Contributions.

ARTICLE LXXIX.

SKIN GRAFTING AS A THERAPEUTICAL AGENT IN MALIGNANT GROWTHS.

By FLAVEL B. TIFFANY, M. D., Kansas City, Missouri.

Richard McGee, of Galena Kan., a negro aged fifty-eighty ears, born and raised in South Carolina, visited me Feb. 7, 1882, relative to a tumor which was located upon his right cheek, and invaded both lids of the corresponding eye.

Fig. 3.

Fig. 3 represents the appearance of the tumor immediately before it was excised, (a) showing a portion where the tissue had begun to break down, the surface at this point being raw and quite inclined to bleed. This spot near the center of the tumor presented a cauliflower appearance, and upon slight pressure, bloody pus could be made to exude, showing that dissolution

of the tissues was going on. The growth was about the size of an Osage orange and completely covered the globe of the eye.

Upon removing the tumor the eye was found to be cataractous. From this and the fact that the tumor had involved both lids and the surrounding tissues, it was thought advisable to remove the eyeball. After sweeping away the tumor, lids and eyeball with the soft tissues of the orbit, the parts were then thoroughly cauterized with the thermo-cautery, completely cremating everything down to the periosteum. The cavity was then packed with lint saturated with the sulphate of iron. This dressing was allowed to remain for several days until suppuration took place. The lint was then removed and the wound subsequently dressed daily with the carbolized spray.

A microscopical examination of the tumor revealed an epithelioma.

Fig. 4.

Fig. 4 represents specimens of its predominant cells. The growth, according to the patient's statement, was of six years' standing, and appeared first as a wart upon the cheek about one inch below the lower eyelid. It grew very slowly for three or four years, and gave little or no pain; but the last two years it grew very rapidly and the pain increased proportionally.

During the last few months, before the operation, the pain was very severe, so much so as to prevent sleep, excepting for a few moments at a time. After the removal of the tumor, the pain entirely subsided and for a few weeks the surface of the wound appeared healthy. In about six weeks, however, a light colored friable fungous growth sprang rapidly up from the deep portion of the orbit near the foramen opticum, which growth, in a few days, attained to the size of a hickory nut. This was

removed by the scissors and its base destroyed by a saturated solution of the chloride of zinc. Other similar growths sprang up from time to time, which were treated as above mentioned. In order to hasten the cicatrization of the wound, large skin grafts were used. The grafts were taken from the patient's chest and averaged three-fourths of an inch in length by one-half an inch in width. There was no difficulty in getting the large grafts to live, excepting at one point, beneath the arch of

Fig. 5.

the brow, as shown in fig. 5 b. Over the site of the fungous growth the grafts grew with even greater avidity than elsewhere. The spot beneath the brow remained for a long time an open, indolent, raw surface, until finally the grafts were made to adhere. The grafts which were placed over the site of the morbid growths were destroyed from time to time by the action of the zinc used. But new grafts, large though they were, successfully took root and grew, all the time recovering ground from the fungous growths until the bulk of the latter being removed, the healthy cell-life of such portions of the growth as escaped the scissors and the zinc, converting as it were, the malignant into the benign, smothering the morbid tendency and hastening the process of repair. After six months' treatment the wound was completely healed as fig. 6 will show. The question which the facts connected with this case, would lead me especially to

suggest for consideration is this: That as malignaut cells seem to contaminate neighboring healthy cells when from their number and malignancy their influence is locally predominant, may

Fig. 6.

not healthy cells be made to communicate their healthy regenerating influence even to malignant cells, when the number of these latter is reduced as much as possible by the knife or cautery?

Article LXXX.

Doubts in Regard to the Movements of the Child in Utero.

By E. Benkendorf, M. D., St. Louis.

I.

Introductory.

Gravid Uterus.—When the spermatozoon has entered the womb and unites with a germ cell from the female and becomes fixed on the interior surface of the womb, we may say that gestation begins. In consequence there are immediate anatomical changes taking place in the uterus. The cells of the muscular tissue of the uterus increase and the uterus expands gradually without its walls getting thereby thinner. Its lining membrane becomes more vascular and adheres closely to the membrane of the ovum enclosing the embryo, except that the lower segment of the uterine membrane does not as closely adhere to the outer membrane of the ovum, though the whole ovum is equally embraced by the uterine walls.

The cervix also undergoes corresponding changes during the time of gestation, but does not increase in muscular tissue, and becomes merely soft, puffy and tumefied, by which change it loses its longitudinal form and becomes flat and circular. The uterus has reached its greatest expansion shortly before the commencement of parturition; and shortly before the birth of the child is ushered in the world a nearly imperceptible contraction of the fundus takes place. This causes the fundus of the womb to descend below the ensiform cartilage and the lower segment of the womb to retract from the ovum which necessitates the lowering of the ovum and its pressure upon the cervix. The latter answers to this pressure by stretching itself over the apex of the ovum, by which muscular action the mouth of the womb is forced to dilate. Every uterine contraction, now painful, forces the child downwards but does not thereby directly effect the dilatation of the os. This depends upon the physiological action of the cervix itself. Its stretching itself over the ovum and the dilatation of the os, in consequence, enter actively into the process of parturition.

We may, therefore, conclude that labor commences as soon as the cervix has lost its soft and spongy feeling, as imparted to our touch and manifests itself firmly stretched over the lower part of the ovum, although as yet no perceptible opening of the os may have been effected.

LABOR.—The time occupied for the delivery of the child is called the time of labor, to wit, the first and second stages. The first, as we have seen, is effected by the combined muscular action of the body and cervix uteri. The second stage is marked by the child's passing into the lower strait and by the assistance that the perineum gives towards the expulsion of the child acting upon it in a similar way as the cervix. The notable difference between the action of the cervix and that of the perineum may be said chiefly to consist in as far as the cervix stretches itself over the ovum by a force acting from below upwards whilst the perineum stretches itself over the advancing child by a force acting from above, downwards and finally assuming a direction from behind forwards, it helps to force the child through the outer outlet. The placenta soon follows, being expelled in the same way as the child.

During the whole time of labor the child has been in a passive condition and its presence was not felt by the mother in any way differing from that of some foreign body, whatever that might have been.

CONDITION OF MOTHER AND CHILD DURING PREGNANCY.—The mother is not aware of the entrance of the spermatozoon into her womb. It may be true that such entrance is accompanied by a peculiar orgasm of all of the female generative organs and that some very sensitive females may be aware of this unwonted feeling. But, generally speaking, we may safely assert that the female does not know when conception has taken place. We therefore do not believe that any reflex action is established between the embryo and the cerebrum of the mother. The fœtus, on the contrary, betrays no sensation of its existence to the mother for the first four months or thereabout. All subjective symptoms of the mother up to this time, are disturbances or sympathetic reflections of the nervous system with a change of nutrition in various organs, and all these changes are referable to the anatomical conditions of the womb. All influences imparted to the fœtus from the mother are through the placenta,

and no direct cerebral influence of the mother can reflect itself upon the cerebral ganglia of the fœtus unless the placenta and umbilical cord can be proven to transfer such influence. This has not as yet been done and we look upon the life of the fœtus as that of an organic nature developing itself according to organic laws and the modelling power invested in itself, *ab initio*.

The embryo is, therefore, entirely disconnected from the mother's mental consciousness and would remain so if she did not receive a subjective knowledge of the existence of her offspring by what is called in common parlance as the "quickening of the child," and even this is really objective knowledge, for she has been taught that these signs of "quickening" are a sign of having another being like herself within herself. Otherwise she would not be able to interpret the meaning of this sign. It is objective teaching which makes her understand these sensations as meaning the motions of a child suddenly having awakened to a state of voluntary muscular activity, after having been motionless in her womb for about four months and a half. Taking these motions to be the sign of the child's manifestation of animal life, she naturally inspires herself and others with a tender regard for a new being that she believes now to have entered into sensible communication with the outside world, although still imprisoned in a space from which it has no power to escape in spite of showing greater physical exertions than it is capable of making shortly after birth. The medical man looks with equal interest on this sign, for it affords him the scientific advantage of prognosticating the time of the birth of the child nearly to a day. It must, however, be borne in mind, that the deceptive voluntary motions of the fœtus are coincident with certain physiological changes of the uterus, by which the exact time of the expulsion of the fœtus can be prognosticated, as well as at a later period the condition of the uterus enables us to determine the progress and duration of labor.

[TO BE CONTINUED.]

Article LXXXI.

Treatment of Fractures of the Femur.* By A. W. McAlester, M. D., Columbia, Mo.

In obedience to your appointment, Mr. President, I beg leave to submit a few remarks upon the repair and proper management of fractures of the femur. When a bone is broken, the vessels—arterial and venous—of the parts, to-wit: The medullary, haversian and the periostial as well as those of the surrounding parts are torn; hence hæmorrhage. Now, this hæmorrhage is arrested in the same manner as that of other parts—that is, by coagula forming up to the collateral branches. The effect of this thrombosis is to deprive the bone of its accustomed nourishment. Hence a limited necrosis is the necessary result and this necrobiotic tissue—organic and inorganic—must share the fate of all tissue in like condition and be removed by absorption.

The unavoidable result of this necrosis is *shortening*. Now, if a bone be accurately adjusted and maintained so without movement, the only element of shortening will be from this cause—the absorption of the necrosed bone. In order that repair may take place, an inflammatory process is necessary—transudation and migration. The medullary, osseous or periostial parts become bathed in this nutrient fluid. The modeling process now begins—the period of inactivity is past. A layer of lymph is deposited, between the fractured ends of the bone, which undergoes development into fibro-cellular tissue or into cartilage and then into bone. The haversian canals become inundated, and as the connective tissue of the canals is continuous in the periosteum and also the medullary canal, the wandering cell-infiltration within the bone is also continuous therewith in the production of an external and internal callus. The periosteum is used up in forming the external callus and disappears and plays only a secondary part in the formation of the callus (Billroth).

* Read before the Linton District Medical Society, May, 1882.

Bones that are destitute of periosteum unite just as well. To get the benefit of this direct union—to hold this inflammatory process in due bounds so that it will run its course in an orderly manner, requires perfect fixation. All movements interfere with the *modeling* process causing the fixed cells to lose their controlling powers over the migrated and mobilized cells of the parts. Hence, union is not only prolonged but the callus becomes enormously enlarged. This gives the Dupuytren callus. It is possible to have direct bone union without undergoing transformation from cartilage (Gant) This gives the minimum shortening.

Our treatment should be with a view to secure this direct union, thereby preventing pain, and saving time to your patient. This short review affords an unanswerable argument in favor of fixed dressings. The question arises, how can these principles be applied to fractures of the femur?

In fractures of the lower, middle and upper thirds, Buck's extension splint (modified) fulfills the indications given. This modified Buck's extension splint also shows how we can have the benefit of a double inclined plane without its drawbacks, viz: a muscular relaxation—relax a muscle and it will shorten, hence the displacing force is constantly acting. By the use of the double inclined plane—especially in fractures of the upper third—you relax the displacing muscles.

Do not understand me to underrate position in the treatment of these fractures, but these extensions must be superadded else tissue shortening will take place. (The merits of several splints were then discussed orally.)

Translations.

Article LXXXII.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Ergotine in Diseases of the Encephalon.—Dr. Luys gave, in a case, 30, 40 and even 50 centigrams in twenty-four hours. The patient became mistress of herself; the congested state of the face, which had been marked, became less so; excito-motor sensibility followed the same decrease.

At the end of a fortnight, a counter proof was made and, the medicine being withdrawn, the train of morbid symptoms reappeared gradually. At the end of six days the ergotine was again administered, and quiet came on again. Her choreic troubles having reappeared after cessation of the remedy, the patient was obliged to continue its use in a regular manner.

The sedative action of ergotine on the circulation of the brain has been utilized in certain congestive diseases. Associated with chloral, it has given satisfactory results in certain cases of mania and against the persistent insomnia of the hallucinated.—[*Jour. de Méd.*

Treatment of Suppurating Buboes.—Dr. Delabousse punctures the bubo, injects into the cavity a solution of chloride of zinc (one to six of water) and lets this remain in contact with the walls of the abscess for five or six minutes. This is driven out and a large injection of carbolized water (one-fourth per cent.) is made. A dressing is then applied, of six or ten thicknesses of gauze, saturated with carbolized glycerine. This is renewed at the end of forty-eight hours. With this mode of treatment, a cure is effected in from six to twelve days.—[*Rec. de Mém. de Méd., etc.*

Hepatic Troubles due to a Tape-worm.—A woman, aged

twenty-six, suffered for several years from digestive troubles, followed later on by vomiting, constipation, cephalalgia, and epistaxis occurring three or four times a month. When she came under the care of M. Vulpian, the abdomen was enlarged and there was a slight degree of ascites; besides the woman was thin and had a yellowish tinge. The first thought that occurred was that the trouble was cirrhosis of the liver, of alcoholic origin. Soon, however, the uterus increased in intensity; the liver increased in size, as also the spleen which was very sensitive upon pressure; it was at this time that fragments of tape-worm were observed in the stools. A tænifuge was prescribed which caused the expulsion of the worm in its entirety. Six days later it was; found that a general abatement of the symptoms had taken place the amelioration increased daily; the appetite came up; the vomiting and nausea disappeared; the diarrhœa alone persisted. The ascites had completely disappeared. After the exhibition of a few remedies, the cure was complete.—[*Revue de Médicine.*

RELATIONS OF UREA TO LIVER DISEASES.—In a recent thesis upon this subject, Dr. Louis Dupré shows that hepatic azoturia is admitted as a fact by good authority; and basing himself upon cases observed and analyses, made by himself, he arrives at the following conclusions:

If the liver is not the organ exclusively interested in the formation of urea and uric acid, it must be considered as the principal factor of these products.

These products and their secretion constitute a depurative act and the liver may be regarded as performing a function of urination.

All the conditions that increase the activity of the hepatic gland increase also the quantity of urea; all those which interfere, diminish or suppress it, proportionately lessen it.

An exclusive milk diet seems to contribute to an increase of urea. The precise determination of the quantity of urea contained in the urine can facilitate a diagnosis which is often obsure, sometimes absolutely latent, of diseases of the hepatic system.—[*Paris Médical.*

A CASE OF IMPALEMENT.—M. Prunières, of Marvejols reported a remarkable case to the French Association for the Advancement of Science. A young man, aged seventeen, was impaled two years ago by the stake of a cart, which accidently overturned on him.

The stake entered the trunk posteriorly, one centimeter above the ilium on the right side and eight centimeters from the median line, passed through the body and protruded in front, a distance of four centimeters from the linea alba and three below the false ribs. It was only after some time that, found fixed to the ground, he was disimpaled and carried to a sort of a shed, and considered dead.

When the narrator, who was sent for in haste, arrived, the wounded man had recovered his senses. The anterior opening of the wound was narrow, whilst the posterior presented an enormous opening into which several fingers could be easily passed. Absolute rest was ordered and a fenestrated bandage covered with carbolized lint and drainage wick were applied. For nourishment he was given skimmed milk. There was no vimiting and the next day the patient had a natural stool; the fever had abated and he was permitted to take "bouillon."

A few days later he could eat; cicatrization of the anterior wound was effected in three weeks; the posterior closed in two months. The individual is at present in a healthy condition and he has suffered no after consequences from his terrible wound. —[*France Médicale.*

ARTIFICIAL FEEDING OF THE NEW-BORN.—M. Tarnier, in a paper read before the Paris Academy of Medicine formulated the following conclusions:

1. The lives of children in early infancy, can be guarded safely but by nourishing from the maternal breast; and this ought to be encouraged by all known means.

2. If the mother's milk is insufficient, it is proper to supplement it by a mixed method.

3. Suckling by a nurse, whilst favorable to the child which is suckled, is dangerous to the nurse's child.

4. Artificial feeding is very much inferior to that by woman's milk; it is always surrounded by great dangers, no matter how done or what milk is employed, and in what locality. It ought never to be adopted unless it is absolutely impossible to do otherwise.

The author recommended the Academy to make a series of experiments in order to see the best results that may be obtained from the best methods of artificial feeding.—[*Bullet. de l'Acad. de Méd.*

COMPLETE ABSENCE OF SEXUAL ORGANS IN A MARRIED PERSON.—Dr Hyornaux recounts the case of a married couple who could not give each other mutual satisfaction. The wife, aged about nineteen, well-formed and beautiful in face and figure, was defective as far as regards sexual organs. There were no labia majora or minora, no clitoris and no vulvar cleft. Nothing was to be seen but the perineal raphé extending towards the meatus urinarius, which was on a level with the skin, with no hair on the pubis.

No vestige of uterus, ovaries or ligaments could be found. There had never been the slightest molimen or attempt at vicarious menstruation, and the subject did not know what sexual desires were. What then is this strange being, as regards sex? Is it a man? Is it a woman? It posesses no characteristic of the former and essential parts are wanting for the latter.—[*Bulletin. de l'Acad. Royale de Méd. de Belg.*

CARDIAC AFFECTIONS RELATED TO NEURALGIA OF THE ARM.—M. Potain has observed three patients whose hearts were normal before the traumatism and who, affected with neuroma after an amputation in one, and with painful cicatrices in two others, presented symptoms of suffocation and palpitation joined to hypertrophy of the left ventricle. This lesion is almost always accompanied by hypochondriasis. Here digitalis is indicated; it is not in hypertrophy of the right heart which is the result of an irritation of the digestive tract. In such a case it is the treatment of the digestive trouble which must be made.

MM. Verneuil and Ollier both had patients with cardiopathy following neuromas in amputation of the arm and the trouble disappeared after the removal of the tumor.—[*Lyon Médical.*

TREATMENT OF FISTULA BY ELASTIC LIGATURE.—M. Querel, of Marseilles, having operated upon and cured six cases of fistula of the anus, by this method, concludes:

1. The elastic ligature, applied to the treatment of anal fistula, is a method exempt from danger even in grave cases, that is to say, in those in which the fistula extends high up.

2. It does not expose to hæmorrhages, is not accompanied by inflammatory reaction and is never followed by relapse. Patients operated upon in this manner, can attend to their business the same day and do not feel any pain.—[*Gazette des Hôpitaux.*

M. DAGREVE, OF TOURNON, IN A NOTE on some of the usual means of prophylaxis, insists upon the value of washing sick rooms with a solution of carbonate of potassium and chloride of lime, and in particular of the application in small-pox patients, before they go out, of soap baths or lotions.

M. E. RIVIERE POSSESSES THE CAST OF a fragment of pottery of the Gallo-Roman period; on this is represented a person whose right leg is bent at the knee and rests upon a sort of wooden leg whose upper part is thick, cylindrical at the middle and bifurcated at the lower end.

M. AZAM, OF BORDEAUX, HAS HAD Felida X——, aged to-day thirty-nine, under observation for twenty-three years. She presents two states, one normal lasting five days, and one abnormal lasting twenty-five, during which she does not remember what has occurred during her normal state. This phenomenon of double consciousness has been under observation for twenty-three years and the case has become historical.

Proceedings of Medical Societies.

Article LXXXIII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, Sept. 30th, 1882.

Retarded Speech in a Child.

Dr. Mulhall.—I had a case last week which may be interesting. A mother brought her child to me at the Throat Department of the St. Louis Medical College dispensary. The woman is about thirty and her child exactly two years old. She complained that her child was not able to talk as children usually do at that age; that it was not able to say "papa" or "mamma," and she seemed very much grieved about it and asked me what the cause was. Through the usual methods of investigation, I found that the hearing and voice were normal. I found the muscles of articulation well developed and perfectly mobile. I then inquired whether, at the time she was carrying the child, anything unusual had happened her. She told me that during the fourth month of gestatson, her husband had died suddenly and she was stricken down with grief. I asked her if she had lost her voice at that time and she answered no; but stated that she had preserved absolute silence during the rest of her pregnancy; that she did not feel disposed to say a word, not even "yes" or "no," but simply nodded her head to affirm or deny. Now. the question that I want to ask is whether, other causes excluded, it is possible that this self-inflicted disuse of the muscles of articulation in the mother, could have retarded the development in the fœtus of the center which presides over the motions of the muscles engaged in articulation?

Dr. Dickinson.—Has the child an intelligent expression?

Dr. Mulhall.—Yes, sir.

Dr. Stevens.—It is the old question, whether the impressions made upon the mothers's mind can affect the child. I suppose that is the whole question involved in this matter, and I will just state a case. I don't know what I believe upon the subject. I attended a woman in confinement within the last year, and the child was born with a deformity of the pinna or external ear —there was no helix or outer margin of the pinna. I dis-

covered it immediately after the child was born. The grandmother of the child was present and I asked her if she could account for it in any way, and she immediately said to her son: "I told you Charley, that if you didn't stop biting your wife's ears, something would happen." I learned from the mother that her husband had been in the habit of playfully, while carressing her, biting her ears, and that it annoyed her very much. This was during her pregnancy.

DR. JOHNSTON.—I have seen a calf with six legs and I suppose we must account for it by the supposition that it was due to the mental impressions of the mother; I have seen a four-legged chicken and no doubt the cock covered the hen four times and so frightened the hen when he impregnated the egg that these four legs resulted. That is about as logical as to suppose that these other cases are due to maternal impressions.

DR. MULHALL.—I don't give it as logic, I give it as a fact which seeks explanation.

DR. JOHNSTON.—I have seen a calf with six legs and a chicken with four legs; these are facts. We meet with these monstrosities in the animal and vegetable kingdoms. We know how cleft palate is caused; that there is not a perfect union of these parts. We can understand how many of these deformities and monstrosities may occur by an arrest of development or an excess of development. No direct connection between the mother and the child, by the nervous system, has yet been defined, I believe. So that all these stories of marks and impressions being caused by maternal impressions, are mere fictions. They are beliefs, and unsupported by logic or fact.

DR. MULHALL.—I know, Mr. President, that these anatomical deformities are common enough, but I wanted to call attention to the physiological deformity, the inability of the child to refine the coarse movements of the tongue into those of articulation, its retarded lingual imitativeness, and I wanted to inquire whether it were possible that the maternal impression could have caused a central paresis in the child. I did not want to draw a discussion towards congenital anatomical deformities or monstrosities, but a physiological deformity, if I may use such a term.

DR. WILLIAMS.—What is the prognosis, Doctor?

DR. MULHALL.—The process of lingual education will be very gradual, but will end in perfect success.

DR. MAUGHS.—I would fall under the category of Dr. Johnston's illogical individuals. I have no doubt at all about the occasional impression of the mother affecting the development of the child. Many of the deformities may be accounted for simply upon the development of the fœtus, the blending together of

different fœtuses into one, thus causing deformities and monstrosities; and then again, they may often be accounted for readily by embryology; we can readily determine how many of them occur. And I have no doubt of the fact that it does occasionaly happen that the development of the fœtus is directly impressed by the mental condition of the mother; and in this belief I am sustained by so distinguished a physiologist as Dalton, in his latest work. Nothing is more common than lesions or non-lesions of the mother producing abortion, so also it may be produced by shock on the nervous system. It might be that continued malnutrition may produce deformity and monstrosity, in some way not readily accounted for. This is true not only of the human being, but it is also true of animals. One of the most able of English writers mentions a case of a cat that was frightened almost to death by the tricks of a parrot that flew down upon it, so that the fright continued and the cat avoided the place and seemed constantly to remember the fright that it had received, and when it had kittens, two or three of the kittens resembled the parrot very much. It was the effect that the fright had upon the nervous system of the cat, presumably, that caused this effect, and it is not unreasonable to suppose that the mental impressions of the human female during gestation, may have a similar effect upon the human fœtus. This belief is a very ancient one. All of you are aware that a very distinguished shepherd practiced upon his owner's sheep, by placing before them certain objects that made them of the one color, or striped sheep in which he was to have a share, and in this way came very near getting all his master' sheep. Of course, this was so because it was in the Bible, but whether it was so on account of the reasons given or not, it shows the fact that it was a belief among that people at a very early age of the world. Doubtless, thousands of cases that are referred to mental impressions have no connection with it at all, but taking these out, there is still left a number of cases reported by men capable and observant, who had opportunities for observation, and men not given to an overweight of faith, men of scientific rerearch, which tend to show that the woman is capable of being so impressed mentally, as to produce an effect upon the fœtus in utero. The Greeks in ancient times were the most cultivated of people, and close observers of nature and they were very careful in surrounding their pregnant women with the most pleasing objects, the most beautiful paintings and most perfect statuary, and to prevent them seeing any of the misshapen, offensive objects that we meet on our streets every day. The Greeks were not only the most cultured, but they were physically the best developed people in the world; and whether there was anything in the development of the fœtus by the impression received by the mother or not, the cause and effect seem to have acted well here, because they were especially careful to have their pregnant women surrounded by

beautiful objects. There are no nerves in the umbilical cord, so far as we know, and yet the connection of the fœtus with the mother is such that the impressions may be made upon the fœtus, and the fœtus may possibly be so affected as to be misshapen by the mental states of the mother. In support of this supposition there are many cases that cannot be accounted for in any other way. It is something more than a mere coincidence, and must be referred directly to cause and effect.

DR. JOHNSTON.—The gentleman says that we know mental impressions often produce abortions; but in that case the impression is made how? Upon her consciousness through the spinal marrow to the nerves running to the uterus, causing a contraction. That is easily accounted for. He speaks about the nutrition. How is nutrition brought about? Is there power in the cells carrying the blood to and from the mother, through the umbilical cord without a nerve? Will that emotion follow the cord that is from twelve to thirty-six inches long, and arrest the growth of the fold of the ear? I trow not. It is the old stories of the nursery that we will never live out.

DR. DEAN.—Does the child express its wants as well as other children, except as regards speech, and is it right-handed?

DR. MULHALL.—Yes, sir.

DR. DEAN.—Of course, there is no reason why there could not be some condition which affects the center of speech before birth, but the center in the other hemisphere would be likely to develop. Does the child appear to understand what the mother says?

DR. MULHALL.—Yes, sir.

DR. DEAN.—We freqently see children very backward in speaking. I have an acquaintance, a former patient of mine, the mother of two children, and she complained that one of the children about two years old was very backward about talking; it could talk very little, and what it says it speaks indistinctly. It does not say one word, probably where its little sister, at the same age, would speak a hundred. I am free to say that I do not doubt that scares, blows, etc., received by the mother do sometimes affect the development of the fœtus. I have no faith in their producing monsters of any type. I have read a great many remarkable instances, but I never saw any that convinced me. I think that probably in the future, all these cases of arrest or cessation or change of development will be explained. I have no belief in the doctrine that these mental impressions produce specific malformations.

DR. RUMBOLD.—I am a little astonished that Dr. Dean has forgotten a very remarkable instance that happened in New

York, of a patient being burned severely, from which she died at Bellevue Hospital, but before death she gave birth to a child. Her clothing took fire and she was burned over the greater part of her body. The child was peculiarly marked, the markings of the child being similar to those of the burned parts of the mother, and not only this, but the child was blistered as if it had been burned as the mother was burned. Now there is no doubt about the facts related, the statements were vouched for by a number of physicians who saw the child and whose names are given. The case was published in the *American Journal of Medical Sciences*, and I afterwards sent for the electrotype plates and published it in my journal. The statements are vouched for by a number of physicians with whom I am acquainted and they wrote to me that they had seen the child with the marks on it, and that the marks on the mother in front were very similar to those on the child. The body of the woman was taken away and was not examined on the back, but what could be seen on the front of the mother was very similar to the marks on the child. This seems to be the most remarkable case on record.

DR. DEAN.—I admit that there are a great many instances stated of malformations, marks said to correspond to mis-seeing longing, etc., but in a large proportion of these cases, if you follow them up you will ascertain that the time at which they occurred was after the develpment of the fœtus had gone on to such a stage that the condition could not have been caused at that time. Thus a woman sees a boy with his limb amputated and when her child is born it is found to have a missing limb; but if you trace up the history you will probably find that the limbs of the fœtus must have been developed long before the woman saw the child with the amputated limb; and there is no process that we know of, by which a limb is absorbed, bones and all, in the amnion.

DR. RUMBOLD.—How do you account for the appearance of burns on the body of the eight months child?

DR. DEAN.—Coincidence.

DR. HURT.—In regard to the case reported by Dr. Mulhall I don't think there is anything extraordinary in the fact that the child doesn't articulate where there is evidence of capacity of voice. The voice is perfect and certainly it is not very extraordinary that the child does not articulate at two years of age. I have had under observation a very sprightly child of six years of age, who at the age of two years couldn't articulate anything, and his mother felt very much concerned about it. He is now attending school and can talk as glibly as anybody. The mother thought there was some relation between this incapacity to articulate and the fact—she insisted that it was a fact—that she had carried the child ten months before he was born; but she

has a sister who out of six children that have been born to her, has one little daughter now about four years of age, who at the age of two years couldn't talk any better than her little cousin; now she talks very well. The capacity of speech is acquired. The organs of speech are a gift, of course, but the power of speech is acquired and some children acquire it much earlier than others. In regard to maternal impressions, I am rather inclined to the opinion that the mother could impress the fœtus in utero, and do it through the nervous system. Whether this is true or not is very difficult to demonstrate. I am tempted to report a case that I have never reported before. It was a rather extraordinary case, and the parents attributed the deformity of the child to an accident that occurred a few days before birth; it was really a case of premature birth. The case occurred about twelve or fifteen miles from where I was living at the time, the parents of the child were living on what is called a ranch. The woman was approaching the terminal period of her pregnancy when she went one evening, as was her custom, to milk the cows. Unawares to her a bull approached the cow and leaped upon her and in the struggle that ensued for the survival of the fittest, or whatever you may call it, the woman was thrown down and her milk spilled, and although she did not receive any injury that could be perceived, her labor came on in a few days. The labor pains came on almost immediately, and they continued until in two or three days she was delivered of a child. I was sent for and attended her in her confinement. She gave birth to an eight months child that had a very marked cleft palate, in fact its whole face seemed to be split in two halves; and that was not all. It had a cleft abdomen. The abdominal walls were separated a little to the right or left of the median line—I forget which now—but I know that the liver was exposed, and there was nothing covering the intestines except the peritoneum. The child was born alive, but of course, it didn't live very long. The cleft of the abdomen extended above proper attachment for the diaphragm, but still not so far up as to expose the lung or heart. The parents attributed the deformity of the child to the accident that brought on the labor. I can't go so far as to concur with this, though we can't tell what happens in utero.

DR. DEAN.—This is a plain case, in which it must be evident that that condition of the child was present previous to the time of the bull covering the cow. If the mother had seen the bull gore the cow—gore the entrails out of the cow, there could not possibly be any connection between that and the deformity of the child, and yet the coincidence would have been closer. We can all see, however, that these cases of deformity are constantly referred to causes that could by no possibility affect them.

DR. MAUGHS.—I have no intention of proving the proposi-

tion to-night, but I wish to place myself on record as being one of those ignorant fellows who are ready to believe in the possibility of the emotions of the mother affecting the fœtus. Most of these cases may be, and doubtless are, nursery tales, and it may be that a good many of them can be accounted for very readily upon the theory of arrest of development, or of excess of the development of the fœtus, and some of them by union of two or more impregnated cells, etc. I am not going to show to-night how this may be done, but I say that eliminating all these, I am one of those who believe that those mental impressions of the mother—these strong and persistent mental impressions of the mother in the very earliest stage of her pregnancy may, and sometimes do affect the fœtus in utero so far as to produce marks directly resulting from the mental impression made upon the mother. Of course this has to be done at an early period. In the case reported by Dr. Hurt the fright produced abortion—brought on labor. Of course in the case of a cleft palate the deformity must take place at the time previous to the union of the palate. We are made in two symmetrical halves and, of course, anything that prevents the perfect union of these halves produces a deformity, and this deformity must occur at the time when the union should take place—it must occur at a time previous to the period at which the natural union of the parts occurs. In the case of Dr. Mulhall, there is not necessarily any connection between the condition of the mother and the child. It is very likely that the child will talk after a while; that it is a mere coincidence. We cannot assume that a voluntary state of the mother would affect the fœtus in utero. It must be a strong, persistent impression at an early period of her pregnancy. Of course, in the case of the mare which Dr. Johnston refers to, the effect must be accounted for in a different way. Nobody supposes that it was the effect of mental impression. It is a physiological fact that a mare having a colt last year by a jack will the next year in all probability give evidence of her previous pregnancy; so, also, a woman whose first husband was dark complected, may upon marrying, afterwards, a fair man have children that are of darker color than either of the parents. There is an impression made upon the physiology of the female, and the evidence of it appears in the subsequent pregnancies. This is a fact known to every stock grower. The impression made upon the tissue changes of a female is different from the mental impression. These effects which Dr. Johnston speaks of are cell changes and are not the result of mental impressions. Nobody supposes that they are the result of mental impressions.

DR. JOHNSTON.—I cannot upon any principle account for my friend's position. Now I have referred to a specimen that I saw, of a chick with four legs. Here is a female impregnated by one exacerbation of the cock. It is hardly possible that the cock impregnated a dozen eggs in the one act. If we could

observe, it is probable that we would see that there was only one egg impregnated and yet it resulted in the production of a chick with four legs. Now is it possible that the impression on that hen caused her to produce an egg that, when hatched produced a four legged chick? Or did the mental impression of the cock produce this result? Was it an impression of the hen's nervous system that caused this deviation from the ordinary course of nature? Now how a naturalist and a man who has studied nature as my friend has, can come to such a conclusion, is very remarkable to my mind at the present day. There is not a thing that occurs in nature but what is governed by a corresponding influence. There is not a stick that falls but it is governed by a physical law; there is not an act that is performed but that there is a physical law which governs it; and we should cease this superstition, we should cease this natural belief. I never will believe in it.

DR. DEAN.—I used to believe and teach that it was risky for a man to marry a widow who had borne children by a former husband because there was likely to be some characteristic acquired more than what would be acquired by simple association, and that the children by the second husband were likely to be more or less impressed in the same way. I taught it and believed it at one time because there seemed to be some cases like the oft-cited case of the quagga, that tended to support such a theory; but of late years I have come to seriously doubt this; and if there is such an impression, then the question comes up: How does it occur? The circulation of the fœtus in the first place, is entirely distinct from that of the mother. The original germ, of course, comes from the mother and if this is impressed, we can readily see how the child is affected; but if it is affected through the circulation from the mother to the child and from the child to the mother say by diapedesis from the fœtal to the maternal side of the placenta; if it were effected in that way, then we would convey these characteristics in every case where we practice transfusion of blood from one patient to another.

DR. HURT.—I can state a case that is quite convincing to me of the fact that the fœtus can impress the mother, whether the mother can impress the fœtus or not, so far as the physiological impression is concerned, or whether the circulation of the fœtus is carried beyond the fœtal side of the placenta or not it makes no difference in regard to the result that I have observed. Some years ago, before I became a citizen of St. Louis, I was acquainted with an Indian female who had been the wife of a Frenchman, whom I had never seen, however I was told that the complexion of the Frenchman was rather fair. By this squaw he had two children, a son and a daughter. The daughter I was well acquainted with; she was a little girl

about four years of age when I first knew her. During the gold excitement in California the husband left his wife with her father, a Ute chief and joined the caravans of gold hunters, and after remaining in California a year or two he died. During this time he had accumulated quite a fortune which he left to these children. He took his little son with him. The little daughter was fair, and had light hair. Well, this squaw, some time after becoming a widow, married again, her husband being a Ute chief, who was not the darkest kind of an Indian; while he was dark, he was not so dark as some Indians. By this chief she bore several children during my acquaintance with her, and the eldest one particularly, a little girl, was almost as fair as her little half sister, and the others, still younger, were fair; apparently too fair to be the children of this chief.

DR. DEAN.—Perhaps they were not.

DR. HURT.—He guarded her pretty jealously. These Indians ars polygamous, and he suspected a young squaw of infidelity and took her out in the woods and shot her. I guess they were his children; and if they didn't have the marks of the previous husband I am very much deceived indeed.

DR. JOHNSTON.—How do you account for the calf with six legs.

DR. HURT.—The same way we account for the chicken with four legs. I have not infrequently seen an egg with two yolks. Sometimes these two yolks will be quite distinct, sometimes they are dove-tailed into each other, and probably that is the reason why we have a double chicken out of one shell. There may be two ova in the animal impregnated at the same time, and they may be, or come in contact with each other while yet in the gelatinous state, and by the exercise of the physical forces of matter, they may become so mingled in their external surfaces that when the nerves and blood vessels are thrown out they are passed into each other and thus become blended together.

DR. DEAN.—I cannot agree with the doctor, I know that was the view we once held, but I think it has been demonstrated not to be true since so many examiners have engaged in the examination of fowls' eggs, of transparent eggs of fishes, etc. It has been pretty well settled that whenever two twins are developed from one egg, whether it occur in one of the lower animals or in the higher, they are very similar, and that in all these cases of deformity the same parts are attached and they are of the same sex; and it would be utterly impossible, floating loosely in the same fluid, for the same parts of these two organisms to always be absolutely together. To produce such monstrosities an entirely distinct process is necessary. On the other hand, when-

ever two ova are developed, they are developed into separate and distinct twins and they may be of different sexes, or they may be dissimilar. I think it is a fact that in all those cases where two fœtuses are developed in one chorion they are similar in form, sex, etc.

DR. MAUGHS.—I endorse the view expressed by Dr. Hurt. I can demonstrate that Dr. Hurt is correct in his manner of accounting for monstrosities in many cases. It is a positive fact that an egg may contain two yolks, and that a fœtus—a chicken may be developed from each and a monstrosity would necessarily exist. It is a positive fact in humanity that a fœtus of two germ cells may be impregnated and they may be blended into one, and if there were a common ammion a double fœtus like the Siamese twins would be produced. This is a posisive fact not denied by any physiologist; but it is positively stated by every embryologist. In the case that Dr. Johnston speaks of, the four legged chicken, of course, nobody supposes that to be the effect of mental impression. Of course Dr. Johnston spoke humorously. Nobody thought of accounting for it in that way. In cases of double headed children, or such monstrosities as the Siamese twins every embryologist will tell you it is the union of two impregnated germ cells. We know that segmentation takes place in the lower animals; but when a deformity occurs in humanity it is always supposed to be nothing else than the union of two impregnated germ cells. We know very well that segmentation may produce monstrosities.

DR. DEAN.—I want to say that I am open to conviction. We all form opinions from the best light we can get. I don't know of a single observer who has been able by hatching an egg with a double yolk, to get a double chicken, or a chicken with four legs. I have heard a great deal of talk about double chickens from eggs with double yolks. I often tried to hatch these eggs with double yolks when I was a boy but I never succeeded in hatching one, and I don't know a single case where a competent observer has produced a double malformation, but only two separate chicks or a single one. It has been observed that when these twins are born among the lower animals where we can observe them, (of course we can't eat our cake and keep it too, we sacrifice the egg or the mother in the human species) in those cases where twins come from a single egg, they are always of the same sex; when we see a double monstrosity the twins are always of the same sex; now if the double deformity always occurs from the blending of two cells how should it always happen that they are of the same sex; and always united at the same part where they are in the same amnion. That alone is a strong argument. It is a fact that a single ovum often divides and forms twins, and if united, they are always united at the same parts.

DR. MAUGHS.—I deny positively that a single ovum ever does produce twins, and I can bring a flood of proof to show that a single human ovum never does produce twins. In the lower animals segmentation would account for many of these monstrosities but the deformities that Dr. Hurt speaks of are the result of impregnation.

DR. DEAN.—I would like to ask Dr. Maughs whether he or anybody else here ever delivered twins from the same amnion that were not of the same sex?

DR. MAUGHS.—Twins in a single ovum doesn't happen. Twins don't appear in the same amnion, or when they do it is readily accounted for—the septum has been absorbed during the later stages of pregnancy. When we have twins in the same amnion it is a monstrosity.

Dr. DEAN.—It has been frequently observed that there are twins in the same amnion and also of the same sex, and not monsters, and also double monsters but of the same sex.

DR. JOHNSTON.—I wish to call attention to the fact that by the last argument the gentlemen have thoroughly proved my position. They have abandoned the theory of mental impressions and placed themselves upon the broad platform of physiological law. All argument ceases as to mental impressions.

SATURDAY, Oct. 7th, 1882.

Dr. Maughs introduced Dr. Stevens, formerly a member of the profession in this city, and now a distinguished member of the profession in New York, and a brother of Dr. Charles W. Stephens of this city, to the Society.

DR. STEVENS.—I was hoping that in coming here this evening I would see a large representation of this city, and among that number I would see a few, at least, of the old faces with which I was familiar in former times. Circumstances relating probably to your public operations in the city at this time prevent a larger attendance to-night. I will only remark that it is a great pleasure to me, and affords me a good deal of satisfaction to visit your city once again, after an absence, with but one or two brief exceptions, of forty years. I made my bow on the west bank of the Mississippi in 1841. I had just graduated from the Medical College of Albany, New York, and I came out here to go to work in my profession. I made a few marks that some may remember when I was here. Some one alluded to the fact that I started the first Medical Journal west of the Mississippi; I believe that is the case. I commenced the publi-

cation of the Missouri Medical and Surgical Journal, and I have a copy of that Journal at home now. Now I am glad to know that the condition of the profession in this city has enabled somebody—whoever that may be—to cultivate the profession in the way of Journalism to a very great extent. You are able to send abroad one of the best Journals of the country. I am glad to see that west of the Mississippi the profession is doing all in their power to maintain the standard by the maintenance of such Societies as you have here and I am glad to say that there are those in New York city who are struggling, and will continue to struggle to uphold the standard of the profession, and keep it at that high point that it ought to occupy. But we have with us, as I suppose you have with you, those who are flooding the profession and sending abroad with sheepskins, those who really ought not to be entitled to the name of doctor. I regret to say that the title of doctor doesn't give one the standing that he ought to have by the mere right of possession of the title But then men are judged by their practical work in the profession, and those who stand high are those who have raised themselves by good practical work.

When I was here before there was on the ground: Drs. Pope, McPheeters, Johnston, Moore, Pollak and a few others; I don't know how many I could mention, but I suppose I could count them upon my fingers almost—the remainder of that number who were engaged in the practice of the profession then. I also had the great pleasure of seeing my brother here in the profession, and to find that he is an honor to his profession. I am glad to own him as a brother in the profession, as well as a brother in fact.

Maternal Impressions.

DR. MAUGHS.—I don't propose to-night to prove any proposition, I only intend to give the reasons why I believe as I do. It will be recollected by the Society that on last Saturday evening Dr. Mulhall reported a case. and very pertinently asked whether there was any connection between certain effects and the condition of the mother—whether the mental condition of the mother during gestation might not have influenced the condition of the child. I said that in that particular case I thought not, but in order to encourage the discussion as much as anything else, I said that while I didn't believe there was any connection between the mental condition of the mother and the deformity of the child in that particular case, I did believe that under certain circumstances—in certain rare cases—the impression of the mother did influence the child in utero. I gave no reason for this belief. I stated that it was occasionally the case, I believed, that the deformity of the child was referable to this cause. That the vast majority of deformities could be accounted for otherwise, or could be rele-

gated, at least, to other causes; that some of them were readily attributable to other causes under the laws of embryology, nevertheless that I believed some were due to mental impressions of the mother. I didn't propose to prove the proposition. There are a great many things which are generally accepted as facts which are not susceptible of proof. Many of the great cardinal beliefs, which have practically the force of mathematical demonstrations are of themselves of a nature that won't permit demonstration. We are nevertheless justified in believing the facts. For instance, I believe in the existence of the immortality of the soul, in a future state and in the existence of an unseen world and yet none of these propositions, can be demonstrated. Well, I do not expect to prove my proposition but my intention was to show that there were good reasons for believing this thing possible, that the mental impressions of the mother might influence the fœtus in utero and I purpose to-night to state some of my reasons for believing as I do. My first reason for this belief is that very early in my professional career, I was called to attend a lady who was remarkable for the large amount of her reading, her fertile imagination, and quickness of conversation, and good memory. She had read almost everything in biography, history, romance, natural history, etc., and recollected it; she had it well digested. She was a lady of remarkable intelligence. This lady had married a retired merchant and was living in affluence. In the very early stages of her gestation—I know it was very early, perhaps about the third or fourth week, not later than that, because she had not yet missed her menstrual period, but she believed that she had conceived—believed herself pregnant, and dwelling upon the subject she awoke one night in great fright about a dream that she had, she awakened her husband and told him that her alarm was on account of having dreamed that she had given birth to an hermaphrodite. He laughed at her, and ridiculed the idea that the dream had any real significance, and did what he could to prevent her troubling herself about it; but she continued to talk about it. She related it to all of her intimate female friends and annoyed her husband by her persistent reference to this subject, which haunted her during the remainder of her gestation. It was an actual presence to her; and she insisted that she was confident that she would give birth to an hemaphrodite child. The first question that she asked after she had given birth to the child was whether it was all right, and as I saw nothing to indicate but what the plump, well-developed child was a boy, I said that it was all right, and gave it to the nurse to dress. I saw nothing wrong about it and supposed that it was a boy. The man laughed at his wife and reminded her of her foolish notion, and how silly she had been to worry herself eight or nine months about such an imaginary thing—a mere dream, that the child

was a perfect child in every respect. Well, she said, she had doubts about it yet, and she wouldn't believe it until she saw it. The child was brought and stripped and lo! it was an hermaphrodite. I am not stating, of course, that there is in humanity such a thing as a perfect hermaphrodite, of course it doesn't exist in a perfect form; but to all intents and purposes this was an hermaphrodite. It was neither male nor female, so far as we could determine at that time or up to the time of its death, which took place two or three years afterwards. I didn't know whether it was male or female. There was no post-mortem made, perhaps it would not throw much light upon the subject if there had. Now it seems to me that this was something more than a coincidence. Either the dream influenced the development of the fœtus or the development of the fœtus influenced the dream. We could scarcely believe the latter, and therefore the probabilities are that the persistent distress, and mental perturbation of the mother caused the hermaphrodism of the child. This case impressed me so strongly at the time that I have always, from that time to the present day, believed the possibility of this thing, after rejecting the vast majority of cases reported. Some of these cases are not mere coincidences. In looking up this subject I found that the great obstetrician of London, and a most eloquent teacher, Dr. Blundel, in his work states his reasons for believing that this thing may occur. He states* as follows:

"It has been often asked, and is still a question undecided, whether the imagination of the mother may have an influence in giving rise to those morbid formative operations on which the generation of monstrosity seems to depend—a question which is not to be decided by reason independently of observations, as a simple reflection may show; for, as we know but little respecting the powers which operate, we must necessarily know as little respecting the powers by which this operation may be influenced. In matters of this obscure and uncertain kind, to ridicule without giving ourselves the trouble to examine, seems to me to be at once both petulant and unphilosophical.. Facts, and not *a priori* reasonings form the basis of modern philosophy; that incubation should give rise to the formation of the chick within the egg-shell—that the conjunction of the sexes should give the first impulse to the formation of the infant in the uterus, must, independently of observation, have appeared both absurd and incredible. In the compass of generation, nothing need surprise us; it is the fairy land of physiology; and, in the hands of divines, its wonders may serve as a good preparative to discipline the mind for the more ready belief of those miracles which it is their office to inculcate. When first I set out on my physio-

* The Principles and Practice of Obstetricy. By James Blundell, M. D. Washington, 1834, p. 99, *et seq.*

logical career, I certainly set out with a strong impression, that the fancy of the mother could not operate in the formation of her fœtus; nor am I prepared to concede, at the present moment, that this impression was erroneous; nevertheless, I must, in candor, admit that various facts have been brought before me, which do prove beyond doubt thus much, that there is sometimes a very striking coincidence between impressions made on the mind of the motner, and appearances which manifest themselves on the body of the fœtus; these coincidences being sufficiently frequent to create a sort of suspicion that they may be of the nature of cause and effect. If I press my finger upon the box which now lies before me, it moves; but how do I know that this motion may not arise from some other simultaneous occurrence distinct from the pressure of my finger? In truth I should this coincidence of pressure and motion in this case be observed but once, were it not for analogical and uncertain experience, I should have just cause to doubt; but when I make this pressure repeatedly, under varying circumstances, and find invariably that motion ensues, unless some third cause of obvious operation be interposed to prevent it, I may reasonably infer that the coincidence of these two occurrences is of the nature of causation; and in all cases of rarer occurrences, I conceive, the more frequent these coincidences, the stronger does the proof of causation become.

"It would lead to a long disquisition, if I were to bring before you all the different facts which have been related to me, and which seem to show that the fancy of the mother may have an effect in the formation of the fœtus; but some of the more striking facts, by way of illustration, I may perhaps be permitted to adduce.

"In the first place, I myself once presided at a labor where the child, after birth, was discovered to labor under the deficiency of the ribs, and this upon the right side of the sternum near its middle. In consequence of this deficiency of the cartilage, there is in this child, now living, a sort of dimple or impression, which is very peculiar, and of which the mother gave me the following account: In the early days of her pregnancy, she took one of her children to Mr. Travers, an eminent surgeon well known to you all, it having been supposed that there was some fracture or other of the collar bone, or the ribs contiguous; and Mr. Travers examining the child with a good deal of care, chanced to make a pressure on the ribs in front, near the sternum; the thumb bearing over this part, while his fingers were placed behind on the scapula, and the rest of the hand lay above the shoulder, the child being young and small; and, in doing this, he occasioned with the thumb a considerable dimple or indentation, which, as the mother, of great nervous irritability, told me, affected her very much, and produced in her that contraction of the skin, which is very significantly denominated the goose flesh. This little occurrence, however, did not ultimately make any very

strong impression on her mind, though she thought of it occasionally during gestation; but when I saw the infant afterwards, she told me the story which I have very accurately related to you.

"Again, a lady whose name it would be improper to mention, (though I had the statement from one of our profession, her own son), at a period, as I was informed, not earlier than the first two or three months of her pregnancy, was very much frightened by a beggar who had lost the hand and lower part of the arm, and who, to excite her commiseration, exhibited to view the mutilated member. By this shocking sight a strong impression was made upon her mind; and some time afterwards, in a ball room, on seeing a gallant officer who had left one of his arms on the field of battle, this impression was renewed, not without a slight emotion of horror and the constriction of the skin, and some few months afterwards the child was born with a coincident want of the arm.

"Now these cases are not solitary; the same tale has been often told, and the same concurrence has often been observed; and, to say the least of it, the coincidenee deserves attention.

"There was a child (of which I have got a drawing) lately born at Plymouth, with excrescences pushing from the mouth, and which certainly resembled a large bunch of grapes, such as might appear in the mouth of a child, if it were endeavoring to devour, unbroken, the whole of a small bunch, there not being room sufficient to admit the whole at once behind the teeth. Before she was aware of this faulty formation, the mother was closely questioned by the accoucheur; and she certainly did state distinctly enough, that in the early period of her pregnancy, not, however, till near the fourth month, in passing along a street, she chanced to see a boy who had got a bunch of grapes, which he was eating very greedily, as boys will do, and that she had a very great desire to partake of them. Growing from the region of the sternum, too, there was an excrescence which might remind one of the whattle of the turkey-cock, an animal by which she had been frightened a little earlier in her pregnancy. The coincidence certainly merits notice.

"Tending to illustrate the same point, you will find in my collection, a kitten with an apparent parrot's head, and the following is the tale which is connected with it: An ancient lady, in his neighborhood, who was, I think, childless, (it is pleasant to love something) among other pets of her family, had a parrot, a cat and a love of a lap dog, all co-rivals for the first place in affection, and who agreed with each other no better than the fair goddesses of Ida, at the time they disputed for the apple of beauty, and unveiled, in the presence of the Trojan shepherd, charms before unseen by mortal eyes. On some occasion or other, it seems, that the cat was in an apartment, and the parrot and dog being placed to the right and to the left

of the doorway,—minaud, then *enciente*, retreating from the chamber, nearing the cage, perhaps to avoid her four foot rival, was alarmed hy the ferocious scream of the parrot, and scampered off in a great fright. Date afterwards proved that she was in the first days of her gestation, and she subsequently produced a good many kittens, all of which were well formed, with the exception of one, which has, as you will allow, a head in form very much resembling that of the bird by which she was scared. Mr. Maurice Workman is my voucher for these facts; in all that is essential, they are, on my part, fairly stated. The healthy formation of the other fœtuses deserves especial notice; but, say what you will, the coincidence is well worth recording.

"Particular facts of this kind I forebear to multiply, though the task is easy. As these coincidences are occasional only, and perhaps rare, of course they do not demonstrate causation; but if on a candid accumulation of facts, it appears that the coincidences between the impressions on the mind of the mother and the body of the fœtus are well marked, and not unfrequent, then, to say the least of them, they establish a very curious fact in animal generation, and their general bearing is to show that the two occurrences are, in relation with each other, as cause and effect. I would that the affirmative of this could be proved; we should then be in possession of one of the principles of formation. But then it may be asked, how can those things be?—and how, it might once have been said, can it be that the moon should acton the waters? If, like many of our forefathers, we had no notion of the bulk of our satellite; if, like them too, we were ignorant of the principles of gravitation; if we had no idea that matter was capable of attracting matter, even at remoter and planetary distance, such an action in such a state of ignorance, must appear incredible, yet, when once the necessary knowledge is communicated, the mutual attraction of the two masses of matter becomes to a certain extent, intelligible enough. Observe here the progress of this wonderful discovery, for it illustrates the progress of all solid philosophy. The fixed relation between the moon and the floods was first sagaciously observed, and verified, allowance being made for the irregularities which arise from accidental circumstances. The probable connexion of the two, in the way of cause and effect, was afterwards inferred from the fixity of this relation. At length the large mass of lunar body was suggested and demonstrated, and the mutual attraction of matter was evinced by experiments and calculations addressed to the senses or reason; and thus the doctrine, which at first must have been deemed a wild hypothesis, was not only proved but comprehended. And while all this was doing, some, in the first stage of inquiry, being variously occupied, paid no attention to the observations on which the discovery was to be grounded; and others, as the discovery proceeded clamored, no doubt against the absurdity and impiety of the proposition.

What! a small body like the moon, to act upon a huge mass of waters, in the ocean? Lunatic! What! the great goddess of the Ephesians—the celestial archeress, whose gracious presence has been manifested to our heroes—whose miracles and oracles have astonished her votaries, and who even now steals down to the mysterious retreat of Latmus!—What! do you dare to assert that this sublime being, may, after all, be nothing more than a huge globe of matter, the scene of tempest and volcano! Atheist! Such I can easily believe might be the spirit which animated the opponents of those doctrines. Yet in the midst of all these commotions, while puppies were barking and men were clamoring, the moon shone—the ocean rolled—the seasons changed—the earth teemed—the mob of all ranks vanished from the scene, and by its mere intrinsic durability, without effort, the truth prevailed at last. Our prepossessions are not the criterion of truth; improbability and incompatibility may result, not from impossibility, but from our ignorance of the requisite explanatory knowledge. All this is clear in speculation, but, somehow or other it is to be forgotten in practice. Doubt—observe—infer—still doubt, and bring the truth to the most rigorous examination. Truth never yet shunned the light; how can she? it is her element.—But to return from this digression; pray give to the profession, with rigid accuracy and well attested, facts relating to this important subject. Always, where it can be known, state the age of gestation, the absence or presence of the feeling of horror, and cutaneous constriction, and endeavor, so far as may be, to verify all by your own personal observations and inquiry of the woman herself. Monstrosity may occur in formation under the egg-shell. How can mental impression be supposed to operate here?"

The Jews also believed that these things sometimes occurred as cause and effect. He says:*

"The Jews, under the belief of the maternal impression, are said to have been so solicitous about the beauty of their children, that care was taken to have some beautiful child placed at the door of the public baths, that the women, at going out, being struck with his appearance, and retaining the impression, might all have children as fine as he. The Chinese, take still greater care of their breeding women, and prevent uncouth objects of any kind from striking their imagination. Musicians are employed at night to entertain them with agreeable songs and odes, in which are set forth all the duties and comforts of a conjugal and domestic life, that the infant may receive good impressions even before it is born, and not only come forth agreeably formed in body, but well disposed in mind."

Doubtless the belief of these people was founded on observation. Of course they were more ignorant than we are about

* Ibid, p. 102, note.

these matters, they occupied pretty much the same ground in not being able to tell exactly how these impressions were made, but they occurred sufficiently frequently to establish the belief that they were as cause and effect.

I have here the proceedings of the meeting of the Obstetrical Section of the British Medical Society in which I find a paper on the effects produced by mental impressions by Dr. Clapperton * as follows:

"Mr. Clapperton read a paper on the effects produced upon the fœtus by some fright experienced by the mother in the early months of pregnancy. In a large proportion of cases the object of fright was a natural object, and the results of the fright were various. In some, a nevus, or mother's mark, bearing a striking resemblence to the object which excited the mother's alarm, was found upon the skin of the fœtus; in others a graver impression was made, and there was a serious arrest of development induced. In order, however, for this to take place, a certain progress only must have been made by the embryo; a little further development protected it from any very grave modification. In some instances the changes produced by fright were recurrent in the same individual, the object being different in the separate cases. Mr. Clapperton had met with one of these recurrent cases; in the first instance the object was a rat; the second a dog. Other observers had had similar experiences. The actual means by which such modification was produced were not quite determined on, as there had not yet been demonstrated any nervous connexion between the mother and her child. Further research, Mr. Clapperton thought, might succeed in demonstrating some nerve communication to exist. After showing that there were some grounds for supposing that these impressions upon the mother affecting the embryo were not confined to human beings, Mr. Clapperton discussed the importance of these malformations from a diagnostic point of view, and stated from his own experience the puzzling character of the presentation in these cases. The paper was illustrated by a specimen."

Dr. Dalton in his Physiology † says:

"It is also through the placental circulation that those disturbing effects are produced upon the nutrition of the fœtus, which result from injuries inflicted upon the mother. There is now little room for doubt that various deformities and deficiencies of the fœtus, conformably to the popular belief, do really originate, in certain cases, from nervous impressions, such as disgust, fear or anger, experienced by the mother. The mode in which these effects may be produced is readily understood from what has been said above of the anatomy and functions of the placenta. We know very well how easily nervous impressions

* *Obstetrical Journal* of Great Britain and Ireland, Vol. II, p. 423.

† Fourth Ed., 1867, p. 617.

will disturb the circulation in the brain, the face, the lungs, etc., and the uterine circulation is quite as readily influenced by similar causes, as physicians see every day in cases of amenorrhœa menorrhagia, etc. If a nervous shock may excite premature contraction in the muscular fibres of the pregnant uterus and produce abortion, as not unfrequently happens, it is certainly capable of disturbing the course of the circulation through the same organ. But the fœtal circulation is dependant, to a great extent on the maternal. Since two sets of vessels are so closely entwined in the placenta, and since the fœtal blood has here much the relation to the maternal, that the blood in the pulmonary capillaries has to the air in the air-vesicle, it will be liable to derangement from similar causes. If the circulation of air through the pulmonary tubes be suspended, that of the blood through the general capillaries is disturbed also.

"In the same way, whatever arrests or disturb the circulation through the vessels of the maternal uterus must necessarily be liable to interfere with that in the fœtal capillaries forming part of the placenta. And lastly, as the nutrition of the fœtus is provided for wholly by the placenta, it will of course suffer immediately from any such disturbance of the placental circulation. These effects may be manifested either in the general atrophy and death of the fœtus; or, if the disturbing cause be slight, in the atrophy or imperfect development of particular parts; just as, in the adult, a morbid cause operatiug through the entire system, may be first or even exclusively manifested in some particular organ, which is more sensitive to its influence than other parts."

Now, of course, the views of Dr. Dalton like the views of any one else are not susceptible of demonstration, but the views of so distinguished a physiologist, who is especially distinguished upon the very subject he is talking about, the placental circulation and its influence—are of great weight and go very far to establish the possibility of the almost universal belief—or at least very general belief that in the human race it is possible for the mental impressions of the mother to affect the fœtus. In answer to those people who deny the possibility of such a thing I refer to Dr. Dalton, who says it is a physiological probability; that there is no reason, physiologically, why it should not be, that the child may be affected by the disturbance of the fœtal circulation. Nobody supposes that this is the result of a miracle and Dr. Dalton shows very conclusively that it may result as the effect of a physiological law. We all know that a mental emotion may arrest digestion, produce colic, nausea and vomiting; so, a mental impression may produce fatal syncope, or cause the rupture of blood-vessels, and these are within the laws of physiology. All understand that this is not the cause of these deformities in every case. There is nothing unreasonable in saying that in one case a mental emotion causes the deformity,

while perhaps in ten cases it does not. We all know that a woman may abort through fright; but there are hundreds of pregnant women who are frightened who do not abort. Nobody ever contended that the mental emotions of the mother was the cause of all the cases of deformity. The fact that there are other causes which produce deformities does not necessarily preclude the possibility of this ever doing so. I would urge upon all physicians without any prejudice or predilections in regard to the matter, to carefully observe these cases, and ascertain the period of pregnancy at which the supposed cause operated, and to get the best and most reliable information in regard to the actual occurrence; and by this means, and by the repetition of these coincidences, we may come to some understanding of the matter. That is the only way; that is all I have to say. I have not made these remarks through any spirit of controversy; but I felt that it was my duty to myself and due to the society that I should give my reasons for believing as I do, and I hope I do it with all modesty. I do not do it for the purpose of criticism; but simply as a matter of justice to the subject and to the profession.

DR. DEAN.—I wish to speak on this subject through no spirit of controversy. I simply want to get at the truth. And before proceeding with what I have to say I wish the matter to be distinctly understood, I wish to state exactly our positions.

On last Saturday evening, among others, Dr. Maughs and myself expressed our views as to the influence of the mental impressions of the mother on the *fœtus in utero* in the production of defects or deformities. It was an expression of our individual views, and it was not incumbent on either of us to fetch further proof of their tenability though it might be a proper thing to do; and I am glad to hear a fuller expression of Dr. Maughs' views. I think no one who recognizes that anger, fear, injuries and the like may so affect the mother as through her milk to affect the health of her child at the breast, or may so affect her as to cause abortion, can deny that these things affect the health and development of the fœtus. But I will not discuss this matter to-night. But other views, presented by me as being held, and some of them proven, by modern observers, Dr. Maughs totally denied as being held by any embryologist in the world; and he challenged me to furnish any such authority. This it rests upon me to do.

On that evening Dr. Johnston asked Dr. Maughs how he would account for four-legged chickens and developments of that kind, and the answer was made by Dr. Maughs that in the hatching of double-yolked eggs these deformities occurred and by the growing together of the parts of the two bodies. I stated that in my boyhood, long before I had ever thought of becoming a physician, I had got all the double-yolked eggs I

could find, and tried to hatch them for the purpose of ascertaining the truth as to whether the hatching of these double-yolked eggs did produce monstrosities; but that I had never heard of a scientific observer, or anybody upon whom any reliance could be placed, who had succeeded in hatching one of these double-yolked eggs and producing a deformed chicken; but they had, instead, obtained two chickens, or one, the other yolk degenerating. I stated further that it was now believed and proven from observations on transparent eggs—eggs of fish, frogs, etc., and on eggs of fowls, etc., that whenever twins, or triplets for that matter, resulted from the development of a single egg, these twins or triplets were homologous, in other words, they were much alike and of the same sex, and that when there was a double-malformation—double bodies—they were of the same sex. There is not, I think, an authentic case reported in the whole history of medicine where it was otherwise. There are a few cases reported which are not authentic, like Rathke's, 1830 where probably the sex was not fully made out, such as the case of hermaphrodite Dr. Maughs reports, where the sex was not made out. I said that where the twins were from different eggs—from different ova or different germs they were as likely to be different as any other two offspring of the same parents; that double malformations resulted from imperfect segmentation or dividing of the germs, and not from the growing together of two separate germs or fœtuses. Dr. Maughs stated, as I understood him, that twins never resulted from the same egg, and that no embryologist in the world would say such a thing—that no embryologist in the world would state that they were the result of the splitting of a single germ, or double monstrosities of the partial splitting. That is as I understood Dr. Maughs, and he challenged me to bring any authorities in point. Dr. Maughs also stated that they were from different ova, and that we could not ascertain these things with reference to human twins. I admitted that the facts we have, have been ascertained largely through the study of eggs during incubation etc. But I asked Dr. Maughs if he had ever delivered twins from the same amnion that were not of the same sex; and his answer was, as I understood him, that that was impossible, that twins never existed in the same amnion.

DR. MAUGHS.—The Doctor misunderstood me; I stated no such thing. I stated positively that such things do occur. I was suffering with a sick headache that evening, and I probably did not make myself clear—I may have stated the matter rather disconnectedly, but I stated that twins were sometimes found in the same amnion, but that in those cases the septum had, in all probability, been absorbed. I denied your statement that twins in the human race were ever produced by segmentation.

DR. DEAN.—I don't wish to misrepresent Dr. Maughs. I understood him to explain the septum of the amnion as disap-

pearing in some way by absorption. We know that in some cases it does. I don't wish to go over the whole ground of discussion, but I would like to be well understood. I stated that it was very strange that if these two fœtuses came together in the amnion they should always be united at the same parts, and always symmetrically; that, if they were floating in the amnionic fluid, they should always get into a certain position, and always be of the same sex; but that, by taking this view, that they are from the same ovum, we cannot well see how it could be otherwise than that like parts should be united. I stated that when twins are from the same ovum, with the same chorion and perhaps the same amnion, with a single placenta, these twins are homologous—they are similar and of the same sex and so of double malformations.

DR. MAUGHS.—That I deny.

DR. DEAN.—But you will not still deny that there are embryologists who state so, I hope. One of the best proofs that these double deformities result from the same germ is that they are of the same sex and are united at the same parts. If they resulted from separate ova they might be dissimilar, as much so as any other children of the same parents and they would, now and then, be one male and the other female as often occurs with other twins. I quote this evening from German authors because the Germans do more work in this matter of original investigation than others, perhaps because they have more time. I will translate freely and those who wish to look at the matter closer can do so.

Foerster on the Malformations of Man (Missbildungen des Menschen), 1865, speaking of multiple malformations, excess of parts or double formations says: "The process on which both rest is an abnormal cell proliferation setting in in the first germinal layer through which this layer for the trunk, or for parts of thebody becomes double or triplicate and the fœtus is so formed that it consists of a double or triple body, or there are double members, fingers and toes. The doubling begins in the long axis of the body, with so narrow, so meagre a beginning, that only the most accurate examination of the fœtus in the middle line will enable us to see the change, and as it progresses the upper or lower end of the body is separated symmetrically in the long axis and appears double." Now if the fœtuses were brought together the appearance would be just the opposite. You would see the bodies brought together and the line fading out. But it is more and more distinct until you begin to see the germs double. In the beginning the line is very dim and "it becomes more deeply sunken, this groove becomes deeper, and this goes on until two symmetrical bodies are formed, certain parts are connected together; and in the same way triplets may be formed from one germ. In all cases in which the individuals

have separate pelvic extremities and separate genitals they are both of the same sex. There is not a single trustworthy observer who has reported a case in which one part of the double malformation was male and the other female.

"It was formerly naively assumed that, in these malformations, two formed children in the uterus had the misfortune to come in very close contact on some part of their bodies, and finally to melt together; and there are those who have not yet emancipated themselves from this view, though it is false. If it were granted that two embryos, that were later to grow together, developed in two ova that lay in two Graafian follicles or in the same, or that they arose in one ovum, still no reason could be given why the same regions, parts, and organs, down to the smallest vessel, or nerve-trunks, gland-ducts, etc., should grow together so symmetrically. A law of attraction of like parts for each other was fabled, a '*Loi d'affinité de soi pour soi*' was devised (Geoffroy St. Hilaire). But this meaningless phrase explained nothing." This was mere dogma and had no more ground than the view that "like cures like."

"Lemery, the oldest defender of this growing-together-theory, was actively opposed by Winslow, and the controversy ran through many years of the memoirs of the Paris Academy of Science. Then came Haller and Meckel who opposed this theory upon such strong grounds that only a few defenders remained while all other authors of importance, in this field, declared themselves decidedly against the theory that the bodies grow together."

This is a classical work and contains an account of all the notable malformations up to the time it was published—1865. I will now quote from Ahlfeld (Aachiv für Gynæcologie, 1875).

"One amnion with separate twins. Completely separated, well-formed twins in one amnion are not very often observed and are, unfortunately, less frequently described with reference to the after-births. A considerable number have been reported where there has been some peculiarity with regard to the twisting or winding of the umbilical cord. From these I select such as are important to this question.

"Stein, 1805, mentions a placenta of the thirtieth week of pregnancy, which was single and yet it sustained two children.

"Tiedemann, 1805, mentions a placenta in which there could not be observed a trace of division—not a trace of growing together, and yet two children were found in a common sac.

"Garner, 1807, found a mature placenta twice as large as usual, there was one chorion, one amnion, and no septum or trace of any one was anywhere to be found; two cords.

"Osiander, 1814; A placenta of third month; twins in one and the same delicate membrane which was the amnion.

"Niemeyer, 1828: A placenta of fourth month. On the bor-

der of the simple placenta were the cords and anastomosis of vessels etc.

"Reynolds, 1835: From one placenta sprang an undivided umbilical cord that divided farther on. The common artery and common vein each divided into two vessels.

"Siebold, 1840, mentions a placenta of the seventh month; there was no septum, so that the fœtuses were in contact.

"Soete, 1843: Mature placenta, simple and round, nearly double the ordinary size; the two cords inserted near the middle.

"Diesterweg, 1856; Placenta common to the twins; cords inserted near each other, and their vessels showed plain anastomoses.

"Newman, 1858: Placenta simple without trace of division.

"Ygonin 1864: Placenta of the sixth month, with twisting of the cord.

"Mueller, 1869: Placenta of the thirty-second week, common to the twins, small, etc. There was not the least trace of separation into two halves. Chorion as well as amnion simple.

"Fricker, 1870: Placenta of the third month; there was no where any indication of a separation, or of a change in the tissues; there were the remains of but one chorion and one amnion.

"Hyrtl, 1870: Placenta disk-shaped; deep anastomoses very numerous.

"Ahlfeld, 1874, reports a matured placenta, with single amnion and chorion.

"Cases where one of the twins was an Acardiac."

"Mery, 1722: A simple placenta, and a simple cord dividing at about the middle of its length.

"Bush, 1803: A complete common placenta; two cords; two remarkable male malformations.

"Cazeau, 1852: Both fœtuses were in a single amnion with a simple placenta.

"Moreau, 1861: Placenta of fifth month; membranes and placenta simple.

"'Justine Siegemundin, 1690, states that there were two children in one water and with one afterbirth. They lay together and there was no separation between them.'"

Of course, as Dr. Maughs says, in many cases the septum may disappear; but in these cases there was apparently no disappearance of division in the placenta. The placenta was single; it was not two placentas grown together; they were cases of two children with one placenta.

In the same Archive for 1876, is another long article by Ahlfeld, who is one of the ablest authors in this field; and from this and his valuable work, "Missbildungen des Menschen," 1880–1882, I quote, here and there.

"The study of the development of double-molformations and

homologous twins has made such progress during the last decades that the general view of investigators is that double malformations and homologous twins must arise from one egg; and the possibility that twins may be developed in a separate membrane and, in the course of their growing, come so near together, or lie so near together, that the separating membranes disappear, and the surfaces of the two grow together, is no longer believed (*glaubt niemand mehr*).

"For two fruits in the uterus to touch each other, the ova-membranes between them must disappear. If they are in separate ova, two chorions and two amnions must be passed through. There is no positive observation that in man the cavities of two ova have ever united. In all eggs that have but one chorion, the fruits are of the same sex. Were it possible for two separate ova to fuse, we should certainly, now and then find a boy and a girl in the common cavity of the ova. It is quite different if both fruits lie from the beginning in one chorion and are separated only by a double amnion-wall. We know that this septum can disappear. Thus it would be possible for the two fruits to come into the one cavity; but they would never unite to form a double-monster. In the first place, they are floating in the amniotic fluid and not fixed against each other; by the least movement of the uterus they would assume different positions toward each other. Secondly, their growing together would be prevented by their complete integumentary covering. And, thirdly, a fact speaks decidedly against this kind of fusion, the fact that these double-malformations always occur united by identical parts. Could separate fruits in this cavity unite in one, we should expect that sometimes the head of one would unite with the back of the other sometimes with the abdomen. Some French authors called to their help a remarkable hypothesis; they assumed a '*loi d'affinité de soi pour soi*,' a law for which they could not bring a particle of reason. This power of attraction of like organs does not exist. The monovistic view now obtains everywhere.

"The question, on the other hand, how the ova are constituted from which, after fructification, result homologous twins and double monsters, is not yet decided beyond possible doubt. Panum found, quite often, two yolks in one hen's egg, and had them hatched; but from each yolk was developed a separate chick, or, what occurred quite as frequently, one yolk produced a chick and the other yolk degenerated. It is most probable that all double-malformations develop from one egg. The origin of double malformations from one egg, from one yolk, in the eggs of frogs and fish, has been established with all certainty by the most various observers. We are safe in concluding that all double monsters develop from the human ovum and from the ovum of other mammals under like conditions. But in what way this development goes on in the single yolk, is a question on which

investigators are divided into two parties. One party claims that, so soon as the germination is visible in the germinal-vesicle, separate germinal-areas are present which either remain separate and develop complete separate homologous twins or, in the course of development, unite more or less to form a double monster. The other party maintains that in all cases the blastoderm is simple and that it splits or cleaves more or less so as to produce more or less divided, or completely separate twins. In this sense we speak of the segmentation, cleavage theory, and of the growing-together, fusion theory (Spaltungstheorie und Verwachsungstheorie). To the adherents of the former theory belong Reichert, Leuckart, Foerster, Bruch, Virchow, Doenitz, Dittmar, Oellacher, etc. Advocates of the separate germ, fusion theory, are Claudius, Panum, B. S. Schultze, Rauber, etc. All investigators agree that examples of separate twins or double malformations examined at a very early period of development, are of more use in clearing up this question than all theoretical deductions. We cannot reckon on obtaining a sufficient number of double germs in human ova at such an early stage for observation, and must fall back on examples from the lower animals. Many things that speak for the fission theory speak directly against the fusion theory: In fowls'-eggs, in which it is easy to test the matter, no one has yet demonstrated with certainty, the presence of two cicatriculæ. Many housewives have told me they have seen two cicatriculæ in one egg, but I am convinced they mistook white flecks for them. In all cases, Allen Thomson found, like myself, only one germinal area; and he says, 'It may be doubted, however, whether the appearance (of two cicatriculæ) which I myself have several times seen was not a deception.' In the fifteen (now twenty-one) years since the appearance of Panum's book to the present time, not a single egg with two separate cicatriculæ has been found, although a great number of workers in the field of embryology have examined innumerable eggs. All twin-, or triplet-monsters observed at an early stage in the egg of the hen or of the goose, have been found in a single area pellucida. The fruits developed from a single blastoderm, whether homologous twins or double-monsters, show, as a rule, such a striking similarity, or show, on corresponding parts, such perversion, maldevelopment of so striking a character, that one is compelled to admit that the germinal material is one and the same. In this way the most trivial multiple formations are explained; while the advocates of the theory of separate primitive germs are compelled to assume a second mode of origin for them namely, cleavage. If from the beginning separate primitive germs united, it would be expected that the larger parts of these blastoderms, the cellular material for the heads and chest would unite oftenest; instead of this, these parts are by far oftener separate than the lower half of the body. The depth of the fission corresponds to the time when the germinal

layer yet appears undifferentiated. So a chronological scale exists by which, the earlier the undifferentiated blastoderm cleaves, the deeper and more general the doubling. This fact admits of no explanation on the theory of separate blastoderms. From the time on when the afterbirths of twins received more careful observation, twins began to be classified as such as were nourished through one placenta and such as were nourished through two placentas. The former were believed to be similar, the latter dissimilar. As soon as it was found that in many placentas anastomoses existed in consequence of which the twins were nourished by a common supply of blood, this like or common blood was looked upon as the cause of the similarity in homologous twins. Hueter wrote: 'If twins have a common source of nourishment from a common placenta, as it were, the middle-point of their lives, so will they have not only the same somatic and psychical peculiarities but also like predispositions to disease, and even diseases, in later life.' So, also, Hyrtl, as regards sex, form and looks, temperament, and predisposition to disease in later life. Since the fact has been known that only twins from one ovum are always alike as regards sex, bodily formation, etc., in looking for the cause we go back not only to the likeness of the blood but also to a much closer connection, to the origin in the ovum. Offspring that have a common chorion are of the same sex, is a statement that has gained general recognition through experience. The number that has made opposite observations is very small. Their error rests either in the determination of the sex or in superficial examination of the ova-membranes. In the first number of cases, proof has been furnished from many sides that undeveloped male sexual organs have been given out as female. With reference to the second error, the observations of John Brunton (London Obstetrical Transactions, 1870) are to be mentioned. E. Lasch, in reviewing them says, 'Brunton's conclusions need much further confirmation.' Olshausen, in a review of the same says at the close, 'Nonsensical communication as also the theory of the cause of like and unlike sexes in twins.' No one controlled or verified Arneth's investigations; but Spaeth believes his observation of the afterbirths inaccurate. Only one case exists in literature from an author of first rank, Rathke, 1830, which is somewhat complicated.

"Virchow, in describing the Siamese twins says, 'I think we can with perfect right assume that the proposition which is in general accepted, applies to these twins; that they arise, not through the growing-together of two ova, but from a single ovum through segmentation (Theilung) splitting (Spaltung). This theory of fission is, besides, fruitful in so far that from this stand-point the duplicity is explained in every case; in a double finger as well as in a double individual. No one on seeing a man have a sixth finger, thinks the duplicity arose through the

growing-together of two germs, whereas the origin of this monstrosity through fission is plausible.'"

In a lecture on the "Two-headed Nightingale" published in 1873 in the *Berliner Klinische Wochenschrift*, which I have before me, Virchow says: "If, finally, I go into the question of their origin, I can only repeat what I have on former occasions explained in detail, that I am of the undoubted opinion that all these cases are to be explained, not by a growing-together of two individuals, but, on the contrary, through division of an originally simple germ."

DR. JOHNSON.—Did you say that two germinal cells are never found in one yolk of the egg?

DR. DEAN.—No competent observer has thus far certainly found two germinal vesicles, two cicatriculæ, present—it has not been demonstrated that there are two germinal vesicles in one egg.

DR. HUGHES.—I am not specially familiar with this subject and of course I shall not attempt to make a speech about it. I am somewhat surprised, however, to find that the authorities quoted make no attempt to explain such cases as the Siamese twins. And those persons who have no interest in the maintenance of a particular theory upon the subject would be inclined to think that those classes of investigators who write upon this subject have attempted to shape the processes of nature in accordance with their own conception of morpholistic laws and to reduce the scope of nature where it is certainly possible for these deformities produced by monovistic segregation; and it is clear that you may have deformities from duovistic aggregation, and the question is with regard to such cases, of which none of these writers have spoken, such as the Siamese twins?

DR. DEAN.—I will simply state that the point that I wished to establish, and which was denied, was that there were authorities who maintained the positions I asserted. I purposely passed over the large mass of argument and proof. The Siamese twins were both males, and the colored "Double-headed Nightingale" was female in both halves. It was just Virchow's remarks with reference to these particular cases that I was quoting.

DR. JOHNSTON.—Do you think the emotion of the mother caused the Siamese twins.

DR. HUGHES.—That is not the question now.

DR. MAUGHS.—I am not going to make a speech. I am indebted to Dr. Dean for the authorities he has referred to; but the controversy has arisen through a mistake. The points that Dr. Dean makes at issue between us are not at issue between us. He simply misunderstood me. I excuse the doctor very readily

in this. I was very indistinct. I was blind with a sick headache, and refused to answer questions asked me. I didn't want to talk; but I stated that I believed in the occasional existence of mother's marks, that is through the impression of the mother produced upon the fœtus; that I did not believe that such was the general rule—that it was not the case in all these instances of monstrosities. That many monstrosities were to be accounted otherwise. For instance cases of multiple fœtus. In such a case the monstrosity is produced either from the fecundation of two eggs which may be each from an ovary; or they may both be from the same ovary. They may be from the same ovary or from two ovaries. They may both be contained in the same Graafian follicle. Then the doctor states that I said that these cases of montrosity never arise from the same egg. I made no such statement. I stated positively that they do originate from the same egg—from a single egg. I might have qualified it by saying that the monstrosities originated from double eggs—from the same egg with two yolks—two cicatriculæ or germinal vesicles. I denied the doctor's statement that they were formed by segmentation. I said they were always produced from germinal vesicles. Segmentation ceases long before it reaches humanity. Away down in the mollusca it is a common form of production. The nautilis or sea snail divides into as many as eight segments. Away down in the scale this is common, but it never happens in humanity. The production of the human species is a more complicated process than the simple splitting up of the yolk. It always requires a germinal vesicle for the production of a human fœtus. The formation of a double finger is a very different process from the formation of humanity. A false finger has been cut off and grown again, repeatedly, again and again; but nobody ever saw a fœtus' head cut off and it grow again.

DR. JOHNSTON.—Do you say a false finger has been cut off and that it grew again?

DR. MAUGHS.—Yes, Dr. Wm. Carpenter reports a case where it grew repeatedly. It is a matter of fact. Now the doctor states that segmentation occurs in humanity. We know that a distinguished accoucheur said it occurs? Schroeder mentions it perhaps a little obscurely, but what he says would lead us to believe that these double monsters are the result of segmentation; but he mentions in this connection the very question that Dr. Dean asked me and I refused to answer; he asked me if I had ever seen two fœtuses inclosed in one amnion. Now if this occurs it is the result of the absorption, at a very early period of the fœtal life of the septum; the septum is absorbed and the two fœtuses come in contact. Or from an egg with two germinal vesicles. Now I am going to disprove the whole proposition, and I will refer to Sir James Y. Simpson's work, pages 324–325, Vol. II.

"From two cases of double monstrous embryos observed in

the egg of the domestic fowl by Wolf and Baer, and from a similar case met with in the egg of the goose by Dr. Allen Thomson, it appears certain that double monsters originate upon a single yolk, probably in consequence of the existence of two cicatriculæ, more or less complete, or of two germinal vesicles upon a single yolk. * * * * Thus out of forty-two perfectly double monsters which Haller was able to collect at the time at which he wrote, there were only two that were supposed to be of double sex."

These were necessarily in the same amnion. Dr. Brunton contends the opposite—that is when two children are in the same amnion they are always of the opposite sex; and when in different amnions they are of the same sex.

Addendum.

DR. DEAN.—Speaking of the limit of the power in man of true reproduction after loss or injury, and of the regenerative power's being exerted more strongly in the early period of development than in the adult condition, and of this power's being retained to a greater extent in some individuals than it is by the class at large, and citing the case of *two* reproductions of the supernumerary thumb (the one mentioned by Dr. Maughs) reported by Mr. White in 1785 (which case, as also the much less marked one of Prof. Struthers in 1863, is mentioned by Annandale and others to point out the importance of removing "the whole of the superfluous part" [periosteum and matrix(?)], and the case of reproduction of the whole of one ramus of the jaw, lost by disease in a young girl, with the development of teeth in their normal situation [periosteum, gums(?)], this same Dr. Wm. Carpenter said as long ago as in 1854, "We seem justified in the conclusion that the occurrence of supernumerary or multiple parts, even when it extends to complete duplicity of the body, is not due to the 'fusion' of two germs, but that it results from the subdivision of one. And that such is really the case, may be inferred from the observations recently made upon the early phases of development of 'double monsters;' from which it appears that their production is due to the spontaneous divarication of the embryonic mass into two halves, at a grade of development which may be considered as corresponding (in regard to the homogeneity of its organization) with the Hydra or the Planaria." And he still says, "There is another class of objects which must be referred to a local excess of formal activity; these are the 'supernumerary parts' which are not unfrequently developed during fœtal life, as, for example, additional fingers and toes. It seems absurd to refer these, formed as they are by simple outgrowth from the limbs to which they are attached, to the 'fusion of germs' which has been hypothetically invoked to explain more important excesses, as those of additional limbs, double bodies, or double heads; and yet from the lower to the

higher form of excess, the transition is so gradual, that what is true of the former can scarcely but be true of the latter. Hence even complete 'double monsters' must be regarded, not as having proceeded from two separate germs which have become partially united in the course of their development, but from a single germ, which, being possessed of an unusual formative capacity, has evolved itself into a structure containing more than the usual number of parts, and comparable to what may be artificially produced by partial fission of the bodies of many of the lower animals."

SATURDAY, Oct. 14, 1882.

Effect of Mental Impressions on the Fœtus in Utero.

DR. JOHNSTON.—I regret that Dr. Maughs is not here to-night. It is exceedingly difficult to discuss a scientific subject when a scientific member of this society takes the position and founds his faith and belief on faith and belief, and tries to prove from that position that faith can be made an axiomatic demonstrable fact. A case was reported by Dr. Mulhall, in which a child two years old had not acquired the power of speech; and the Doctor stated that the mother, while pregnant was morose, taciturn and held no communication with any one. Her silence commenced at the fourth month. The question was then asked by the Doctor, if that silence of the mother would have any influence upon the child then in utero. That necessarily brought up the question of what influence would the imagination of the mother have on the offspring in the womb? It is a fact, as was read here by Dr. Maughs, that Dr. Blundell and most of the old obstetrical writers believed in the doctrine that the mother's imagination would influence the child in utero; that it would cause an arrest of development, or a variation of the true morphological order of nature. This doctrine has prevailed not only since the commencement of the Christian era, but it was held among the Romans and Egyptians, as Dr. Maughs stated; but like many other traditions and nursery stories, this theory has been given up by the most of the scientific men of this day. But I must confess that I was very much astonished when Dr. Maughs took the position that he did the other night. Some years ago when he arrived in this city, he wrote a pamphlet on evolution, and it was a very creditable document, and then to find him at this period taking the position that he did, was incomprehensible. Arrest of development is governed by fixed physical laws which govern matter and its relations, and an influence may be exerted upon the vegetable which will divert the plastic matter from its true morphological development, and it will then result in a deviation from the natural. You see it in the potato, in the

apple, the cherry, and in all vegetable life. How does fright affect the life there? It is not through the nervous system, because there is no nervous system there; the whole life is carried on through the capillary circulation; therefore, we cannot ascribe to the plant any nerve influence, and nerve action, or brain action. We cannot ascribe to the plant any fright or imagination; we can only ascribe to the plant the evolution of plastic life. Plants are governed by physical laws and if there be variation or monstrosity it depends ever upon external and internal influences which govern it and its relations to them. Matter, under certain conditions will take on life, and that life depends upon its relations to the surrounding objects. Now then, if the nutrition of this early plant in its germ life, or even when it is older, doesn't bear a true relation you will have a monstrosity. Now then we come to the animal life. You see the mollusca, which have no power to move. In the development of these you see monstrosities. There is little nervous system here, merely an outcropping, yet under certain conditions we see a variation of development. We cannot ascribe it to the imagination here. We come up to what we term the lower animals. We may take the placental tribe—the marsupial, the warm blooded animals, here we have brain and nervous system. Here we meet the same phenomena—monstrosities under certain conditions—that we meet in the vegetable kingdom. Now do not the same monstrosities take place in the vegetable kingdom without brains and without nervous system that take place in animals with a nervous system? If so we must come to the conclusion that one is governed by fixed and definite laws just as the other. Variation of development does not depend upon the imagination in the chicken or cow. It has been demonstrated that the chick can develope monstrosities and abnormalities; but we do not believe that it depends upon the imagination of the hen during the stage of incubation. It is admitted that the arrest or excess of development in the chick does not depend upon the imagination. Then we come on up to our own species; and it must be in every gentleman's experience, who has lived to be thirty years old, that in conversation with ladies whom he has met, and who have been pregnant, he has found that they have been frightened time and again, and yet their children have not been malformed. It will not do then to jump at the conclusion that, because some lady has had a fright in some way and imagines that it has been the cause of the deformity of her child, that all these malformations result from fright. Take for instance, this case which was reported here, because the mother was taciturn during a portion of the period of gestation it is supposed that the child was backward in learning to talk, for language, as Dr. Hurt says, is certainly acquired and belongs not to the human species alone, for the parrot can talk and many other animals. Now, brain is the organ of the mind, for without brain action,

you can have no mental action. Now wherever we have brain, we will have the phenomena of mind whether it be a large quantity of brain or a small quantity. The mind is a mere molecular action of the brain and its consciousness of the relation of bodies around us. It is nothing more and nothing less. If any gentleman will examine the nervous system, if any gentleman examines his relation to his fellow men around him, he will at once, if he reflects, feel, either the activity of his brain or the want of its action; and therefore all of our knowledge consists in the objective and the subjective coming into juxtaposition, this gives us our consciousness. But as regards the effects of the tactiturnity of the mother upon this child; at the fourth month, as we all know, the child is perfectly formed but not thoroughly developed. There may be some reason as stated, that the child's brain is governed by some unknown law to us, just as an unknown law produces a deformity in the cherry, or chick, or the animal. It seems to me that we cannot ascribe it to the imagination of the mother. We see in the case of the fish in the Mammoth Cave, Kentucky, where there is no necessity for an eye, no eye is present. So we see in the caterpillar, one kind has one eye and another two eyes; so that nature provides all by a law that we do not understand. All is the result of evolution, or an arrest of evolution. So the same law that produces variation in species, and arrest of development, or an excess of development is the same law that governs the vegetable.

DR. A. GREEN.—Mr. President, we can prove nothing by the discussion of this subject; but that the impression of the mother does sometimes affect the child in utero, I think nobody can doubt. But it doesn't always affect it so, because if it did we would have a great many more deformities than actually exist. When there is fright what takes place? There is a spasm of the capillaries. Now this may cause a deformity of the child in some way or other, but then this does not always occur. For instance, we have cripples of different kinds on the street and a great many pregnant women passing by and looking at them, and yet there is only a small portion of the children born cripples, so that it does not always affect the children in utero.

DR. HURT.—I thought this question had been pretty thoroughly discussed two weeks ago to-night, and I learn that it was under discussion at the last regular meeting and I see that some of our learned fellows are not satisfied with what has been said on the subject and want to discuss it again to-night. There is this about it: we are ready to admit that organic development is amenable to, or accomplished under certain fixed laws of nature. This holds good in vegetable as well as animal development, and it is owing to this fact that we see animals and vegetables reproduce after their kind. Now it may not be satisfactory to the scientist that a susceptible woman discovers an explanation for

the deformity of her child in a strong impression made upon her during the period of gestation. It may not be sufficient to prove to the mind of the scientist that it is possible for the fœtus in utero to be impressed in this way, and therefore he rejects it. But it seems to me that we see effects which cannot be accounted for it any other way. Thus in the order of animals lower than man we see fewer abnormalities than we observe in the human race, and we cannot account for them in any other way, for they are equally exposed to the causes of those accidents that are calculated to produce abnormalities as man is, and more so perhaps.

DR. SCOTT.—Is a cow as susceptible to impression as a woman?

DR. HURT.—No; a cow is not so susceptible to impression through the mind upon the organization as woman, from the fact that man, though the most perfect in the scale of animal creation, has a higher susceptibility to grief and melancholy and fright perhaps, and it is only through this higher susceptibility to mental impressions, that we may account for the fact of a greater number of deformities in the offspring of the human race, than in that of any other race of animals.

DR. HUGHES.—I was in hopes that somebody else would say what I am going to say. I think there is something left unsaid that might as well go on record. It is a fact that maternal impressions are made upon the fœtus in utero at certain stages of fœtal development. That much we know to be a fact. The question now comes to the mind of every medical man, whether it is another fact, that the identical impression made which excites the mother's mind is transmitted to the fœtus in utero. On this question there is great doubt among writers and observers, so far as we can ascertain from what has been stated on the subject. The explanation of Dr. Dalton in regard to the physiological possibility of maternal impressions being transmitted to the fœtus in utero, is a good one so far as impression in the abstract is concerned; but it does not enable us to explain how it is, if it be a fact of observation, that the identical impression arising in the mind of the mother, either from the emotions beginning subjectively, or from impressions excited objectively, they can be subsequently impressed upon the fœtus in utero in the precise form in which they arose in the mind of the mother. It is a difficult question to understand, because of the absence of direct nervous communication between the fœtus in utero and the nervous system of the mother. It is easy enough to understand how it is that through the influence of fear in the mother's system we may have commotions—physical commotions excited in the fœtus, which may manifest itself in nævi or any other form of aberrent development, so that you may reach the point, of actual monstrosity. But that a specific impression may be trans-

mitted specifically to the fœtus, and the physical image in the mind of the mother be transformed into a physical representation, is the question which is not yet settled to the satisfaction of persons who are accustomed to weigh well what facts they receive as demonstrable.

From the time that Jacob planted those sticks—those hazel rods—to the present day, it is an impression in the mind of the medical man and the non-medical man, that startling impressions made upon the mind of the mother at a certain period of uterine gestation, will make its impresion upon the fœtus in utero, and that the impress will be a precise representation of the startling impression; and yet with all the statements with which our literature teems on the subject, we have not got those observations so satisfactorily established—so correctly tabulated that it has come to be one of the facts of medical observation, that the precise impression made upon the mind of the mother can be transmitted to the fœtus in utero. At this day it is too late to attempt to deny the fact that some influence can be transmitted in that way. This form of disturbance may be transmitted along the sympathetic nervous system to the fœtus in utero, and if it is not sufficiently matured, may effect changes in the nutrition of the fœtus. It may give you monstrosities; it may give you deformities; it may give you nævi and other changes which are recognizable as the consequences of maternal impressions; but that they may reproduce the precise physical representation of the physical impression made upon the mind of the mother, is a matter which we must consider, so far as our present knowledge goes, as yet unsettled.

DR. SCOTT.—Mr. President, it is as clear to my mind that these impressions are made, as is the fact that two and two make four. I have seen this occur in my own practice. I have seen the exact image of the cause of fright transmitted to the offspring. I related two instances that came under my observation some years ago. One lady was frightened by a woman who had a terribly ugly face, known as the frog's face. The lady was coming out of Lucas Market when she was frightened by this woman. She was then about in the third or fourth month of pregnancy, and when she was confined the child to which she gave birth was the exact image of the woman, just as near as it was possible. The fœtus was perfect in all other respects. This came directly under my observation. Then I remember another case in which a woman who was not of that class of women that we would expect to be very nervous, or very susceptible to nervous influences, was assisting her husband in killing a hog. The man had hung it up for the purpose of gutting it, and as the intestines were cut into, the spleen fell upon the woman's abdomen, and she said that she felt a sickness of the stomach come over her at once. When the child was born it had an exact fac-

simile of a spleen attached to its skull. There was no hair upon it. It hung down and was the color of a spleen. I have seen other cases in my practice, where the very image of the cause of fright was transmitted. I cannot tell how it happens, but that it does occur I am clearly convinced. I am satisfied that the mother's mental impressions are transmitted to the fœtus. I have had my lady patients tell me exactly where to find the marks. Sometimes they have been mistaken. Dr. Green admits that there may be cases in which this may occur; and if there is no case in which it is true, it may be true in others. If but one well-authenticated case can be brought forward, it is proof positive that such a thing may occur and that these impressions can be made.

ARTICLE LXXXIV.

MISSOURI STATE MEDICAL ASSOCIATION.

TWENTY-FIFTH ANNUAL MEETING, HELD AT BRITTINGHAM HALL, HANNIBAL, MO., MAY, 16–17–18, 1882.

THIRD DAY, Thursday, May 18, 1882.—MORNING SESSION.

CONGENITAL MULTILOCULAR CYSTIC DEGENERATION OF THE THYROID GLAND. By DR. A. W. MCALESTER, Columbia.

But little information concerning these tumors can be obtained from text-books. There are but two sources from which it may be gleaned, viz., Holmes and Gurlt.

Before giving the details let us look at the anatomical structure of the gland. We distinguish two parts: 1st. The glandular follicle, the analogue of secerning glandular substances. 2d. A frame-work of connective tissue which encloses the follicles and unites them in smaller groups to grains, in larger to lobules and lobes.

Each follicle contains a clear fluid, rich in albumen. The connective tissue is richly supplied with bloodvessels. Hence the easy transition of this gland into many cysts.

By the courtesy of Dr. Trimble, I was called in consultation to see the child of Mrs. B——. The child, a girl ten days old, had a tumor, with irregular outlines, extending from the angle of the right lower jaw to the median line of the neck seven inches, thence towards the opposite side two inches, from center of right clavicle to middle of lower jaw, five and a half inches; lobulated,

translucent, and I thought fluctuant with somewhat of a solid base near the median line and lower part of tumor.

The mother and father have a healthy look, grandfather died at the age of sixty-four, of tuberculosis. Grandmother, on mother's side, living and presents a scrofulous appearance.

The tumor gradually increased in size up to the date of death. The child grew and did well for three months, then became emaciated and kept on until it died, pneumonia being the immediate cause of death.

A post-mortem gave the following dimensions of the tumor: long diameter, eleven inches; transverse diameter, six and a half inches. To remove the tumor the following stuctures were cut and turned out of the way, viz., sterno hyoid, sterno-thyroid, sternocleido-mastoid and omo-hyoid muscles, common carotid artery, external and internal jugular veins, and pneumogastric nerve. The tumor was then found to be attached to the hyoid bone, thyroid cartilage and three adjoining rings of trachea, thus making an attachment of two inches.

Tumor was partly cystic and partly solid; weight, two pounds; after evacuating cysts, one pound.

From the tabulated cases given, it seems that complete excision is the only reliable treatment in such cases. Can excision be safely performed? Children suffer greatly from *shock*, and perhaps the greatest cause of shock in them is the loss of blood. In this case it would have been very great. Holmes gives his opinion in favor of complete excision.

To conclude, would a surgeon be justified in operating on the case reported?

THE TREATMENT OF POTT'S DISEASE IN THE UPPER DORSAL AND CERVICAL REGIONS. By DR. A. J. STEELE, St. Louis.

I would treat a Pott's disease below the eighth dorsal vertebra, with the ordinary plaster jacket, and with caries of the spine above the seventh dorsal, a jacket under the axillæ will not support and must be carried higher, even to the base of the neck if it can afford any support. I think it can be treated without a jury-mast by passing the jacket obliquely across the shoulders, the strips crossing below the shoulders and over the sternum. The triangular spaces left can be covered by reverses or by cheese-cloth saturated with plaster.

By thus carrying the jacket higher, firm support will be obtained for four or three additional vertebræ, as high as the fourth or third dorsal. To obviate difficulty in respiration, the jacket is limited to the ribs below. I have applied it nine times and am well pleased with it.

Dr. Gehrung was the first to employ this modification, limiting the jacket to the border of the ribs. He advises immobilizing the ribs; I have not found it necessary to use extreme force.

If the spinal disease is above the fourth dorsal, the jacket is not enough; a head-rest must be employed, either a jury-mast or chin rest as devised by Taylor and modified by Schäffer, which can be attached to the vest and the weight transmitted to the shoulders, which constitute a better and firmer support than the hips, which is done in the jacket.

For the past two years I have been using sole leather instead of plaster, making a portable and removable vest. Other materials may be used, such as paper, felt, silicate of soda, etc., all being shaped over a plaster bust or cast. To obtain this cast a a pluster jacket is applied, taken off the patient and filled with plaster.

The leather is moulded to this, ventilating holes cut in it, the outer surface enamelled, and the edges bound with chamois. Hooks about an inch apart are attached for lacing, in front of the shoulder and in the median line.

Should it, for any reason, be deemed advisable to change the shape or contour of the vest, it could readily be done, adding to or taking from the plaster of paris cast. For examale, to give more space to the boss or knuckle, additional plaster should be added to the prominence, thereby causing a greater hollowing in the leather, thus avoiding undue pressure and the consequent ulceration. This is my usual custom.

In cases requiring the additional head-rest, the removable vest is preferable, as it may be removed at night; it, of course, should be reapplied in the morning before arising.

There are cases not suitable to the portable apparatus; the child not yet walking; a case too ill to be up; a case in which the local trouble is an acute inflammatory stage. Recumbency is best suited to all these. In all cases constitutional treatment must not be lost sight of; fresh air, sunlight, good diet and tonics are essential.

DISCUSSION.

DR. ALLEN, Liberty.—I have not had much experience, but have had cases that gave me trouble. Most surgeons have no difficulty in applying the plaster of paris jacket; I have had it. It may be that I lack some of the unwritten knowledge. I make the effort but cannot get it to harden.

The jury mast is difficult to apply properly and if the child falls there is danger. Dr. Steele made a point in regard to the axillary stirrup; I generally prefer not to swing a child; get a strong man to support it with his hand, a physician preferably.

I follow the angles of the cartilages of the ribs, giving an opportunity to breathe. I prefer silicate of soda for the jacket and have one that has been on for three months and it is all right. It is not half so cumbersome as plaster of paris, nor one-half so heavy as Dr. Steele's bandage, and will hold as well.

DR. WARTH, Nevada.—I wish to give my personal experience in this matter. Sayre insists on obviating abdominal pressure by inserting a "dinner pad." After the jacket has hardened the pad is removed and this leaves sufficient room for respiration. In my hands the plaster jacket answers all purposes. I do not know how Dr. Allen applied the bandage; Dr. Sayre's method is to rub dry plaster over the bandage in addition to the creamy solution.

DR. STEELE, St. Louis.—My paper was confined to Pott's disease in the upper dorsal and cervical region. In 1878, I considered Sayre's method to be the best. The point I wish to make is that the jacket ought to be carried over the shoulders and not below the axillæ and down to the hips.

The removable dressing ought to be applied when the immovable is taken off. In regard to applying the plaster jacket, the best plaster must be used. The coarsest cheese-cloth, with plaster rubbed in on both sides, should be employed to make the turns.

CONGENITAL CYSTS OF THE THYROID GLAND. By Dr. F. J. LUTZ, of St. Louis.

Until quite recently, very opposite opinions were held about the occurrence and frequency of congenital bronchocele; but it is safe to assert that it occurs more often than usually supposed, not only in lower animals, but also in man.

The only figures I can quote give, I dare say, the average proportion. Demme, of Berne, Switzerland, says that of 462 cases of struma observed in the children's hospital, fifty-three were congenital.

Many cases of congenital bronchocele so called are not neoplasms is the true sense of the term, but only an enlargement of the thyroid gland. This is observed in pertussis, chronic catarrhal pneumonia, valvular diseases of the heart and various febrile disorders, in which latter cases it yields to antipyretic treatment, just as the spleen does. Sometimes disturbances in the nerve supply of the bloodvessels cause enlargement. Most cases are due to chronic hyperæmia, bronchoceles of this kind disappear rapidly and spontaneously.

Congenital goitres, however, appear which consist of a true hyperplasia of the tissues of the thyroid. Thus Brand and Danyan, Virchow and Hecker report cases where the fœtus presented such tumor.

Congenital cysts of the thyroid occur least frequently and the cases reported are very much scattered. Bednar narrates a case (colloid, multilocular); V. Ammon, one occurring in Dieffenbach's clinic. Hubbauer, one in which the cyst formed an impediment to delivery. Demme gives the following statistics:

of fifty-three cases of congenital bronchocele, twenty seven were simply hyperplastic, fourteen follicular and nine cystic.

It is one of the peculiarities of congenital cystic bronchoceles that their walls are very vascular, which explains the frequency with which the cyst is filled with blood.

SYMPTOMS.—This will depend upon the site of the tumor. Usually there is laryngeal and tracheal stenosis followed by asphyxia resulting from the compression. Alarming disturbances of respiration may also be caused by congenital as well as acquired bronchoceles. During these attacks of respiratory difficulty, respiration becomes more rapid, superficial and short, and ceases entirely (Cheyne-Stoke's phenomenen). After a short interval respiration begins again. These symptoms are due in part to temporary compressson of the respiratory tract and to some extent to pressure on the vagus nerve. Death may be caused during such an attack by asphyxia.

Congenital broncoceles may give rise to atelectatic patches in the lungs, or to chronic pulmonary hyperæmia, broncho-pneumonia, acute œdema of the lungs, etc., and if the pressure is long continued, chronic œdema or hypertrophy of the brain may result.

ETIOLOGY.—Those factors which predispose to the development of bronchoceles must also be considered a predisposing element in the causation of congenital bronchocele. We need not mention the endemic character, climatic and geological conditions, but the anatomical peculiarities may be considered. Besides this its heredity is established beyond contradiction. Defective nutrition of the mother during gestation, as well as the very irregular development of the thyroid vessels are others. There are yet other unknown factors which must contribute toward the production of these congenital neoplasms.

TREATMENT.—For the present, only congenital bronchoceles of cystic nature concern us. They may require treatment on account of asphyxia, either brought on or increased by the parturient effort. If seen immediately after birth, this may be relieved by removing the cause and in extreme cases by tracheotomy or an elastic catheter into the trachea.

The treatment subsequently consists in an attempt to produce adsorption of the cysts by the local and internal use of iodine in some of its combinations, or else the cyst may be tapped and then injected with tincture of iodine; or it may be incised and its walls attached to the skin, as suggested by Beck. This latter is a dangerous practice.

NOTE ON THE ESSENTIAL PSYCHIC SIGNS OF GENERAL NEURATROPHIA OR NEURASTHENIA. By DR. C. H. HUGHES, St. Louis.

"The subject of latent and unrecognized mind," said Forbes Winslow, "is yet in its infancy."

Van Dusen, a Michigan insane asylum superintendent, in 1867, first emphatically differentiated the disease in this country as a distinct form. Since his concise pioneer description, the contributions of Beard, Ball and Benedikt, Cordes, Erb, Gowers, Jewell and the present writer have appeared, until the few sentences of the past have been extended to pages, and the pages to volumes.

Neurasthenia is a more or less general failure of the normal nutrition, appropriating power in the higher nerve centers, especially the psychical, leading to consequences short of appreciable structural change—a pure neuratrophia which is only functional in its effects and confined, in expression, to an altered and lowered function in the nervous system itself. The neuratrophia here is *solely* functional, not at all structural. This is why we prefer the term functional neuratrophia to neurasthenia.

General functional neuratrophia is a state of nerve starvation due to causes inherent in the nervous system itself, having its appropriate symptomatic expression in nervous exhaustion and its immediate sequences, the chief and most significant of which are psychical. Neuratrophia is primary when a precedent anæmia is not the cause; secondary and symptomatic itself, where blood defects induce it, but then not strictly entitled to be called neuratrophia.

The panophobia of Esquirol; the pathophobia or hypochondriasis, of the old writers; the toxiphobia of old alienists; and Hammond's synonym, mysophobia (the greatest of neurasthenic symptoms, by the way); the claustrophobia, of Ball; and its antipodal agoraphobia, of Maschede; the manophobia, panophobia, phobophobia, astraphobia, anthrophobia and topophobia of Beard; the gynephobia of Spitzka; the sideromophobia, of Rigler; the agoraphobia of Westphal, with Rosenthal's synonym of platzangst, and Benedikt's similar platzschwindel; the syphilophobia; hydrophobia (dread of large bodies of water, a natural dread in horses); thanatophobia or necrophobia and necropalophobia (fear of death and graveyards); and the numberless other fears, needless here to name, not natural to certain persons, but which come upon them when neuratrophic ill health overtakes them, are expressions of a certain psychical change, not at all limited by the special terms thus far coined to express them —not to be limited either by the many words likely to be constructed from Greek, Latin or Saxon languages, by expert philologists amongst us.

It would be an almost endless task to enumerate the many morbid fears of the neuratrophic. The mental substratum underlying these unaccustomed morbid fears and dreads, and morbidly colored perceptions, conceptions and misconceptions, is timidity or irresolution and irritability of manner and speech not natural to the person, and this state of morbid feeling has not been

reasonably acquired by any rational experience in the history of the person. Timidity underlies the morbid fears, as later on, the hallucinations underly the culminating delusions.

This fact has not been noted by others, and it is the most important fact to the general practitioner, for the initial stage of unnatural timidity and irresolution, which the family physician may discover if he looks for it, is the time when the impending calamity may be averted by counselling the patient to promptly suspend business and seek relief and recuperation in restorative medicine and rest from mental strain through temporary change and recreation.

Insanity is closely allied to neuratrophia, and is its frequent sequence as Van Deusen wrote.

The feature of functional neuratrophia to be italicised is the timidity not natural to the person out of which these fears grow, and give to the mental character that notable change in which irresolution replaces former decision of character, and supplants even natural fearlessness with fearfulness and dreads innumerable.

Beard's view that the characteristic of neurasthenic fear is in the degree rather than in the kind, is only partly true. The change is a psychical timidity and indecision of mind and manner, whether it displays itself in monophobia, deutophobia, tritophobia, panophobia, or whether it has not taken shape in a single definite fear, or in multiple fears defined.

The aim of this note is to be practical rather than learned, and it is hoped that it may be received in the spirit in which it is prepared. We think too much has been made of the subject by some writers. Perhaps you may conclude that we have made too little of it.

DISCUSSION.

Dr. G. Hurt, St. Louis.—Dr. Hughes is cautious and brief but I think that he is liable to defects common to all, i.e., that in attempting to carry out his theory he forgets its relations to all other subjects. The presentation of neuratrophia as a premonitory state of insanity is open to some criticism. In neuratrophia we have a failure of nerve power and to the same extent we have a deficiency of brain power and if we present the question of paresis or neuratrophia as a small idiocy I can take no exception to it. But in the broad question of insanity we must make a distinction between idiocy and mania. Some maniacs reason with great force, a particular defect in some maniacs is that the brain is too active.

Dr. Campbell, Callao.—The question occurs to my mind as to whether we have to regard neurasthenia as really a condition of insanity; it is whether this condition of the brain may not

occur and, at the same time, restoration may not be effected without a degree of insanity?

What is the line of division between neurasthenia and insanity?

DR. ALLEN, Liberty.—Dr. Hurt's argument is correct. I understand that when we speak of the normal functions, we speak of the normal blood supply. There may be a want of function due to the opposite condition; in idiocy there is the former, in mania it is the contrary. Function is present in proportion to the blood circulating in the brain.

DR. CLAYTON, Hannibal.—Dr. Hughes' paper reminded me of Herbert Spencer's definition of life. He says that it is "the definite combination of internal heterogenous changes, both simultaneous and successive in correspondence with external co-existances and sequences." I think however, that I understood the doctor and that he is correct. General anæmia of the human system will produce a condition approaching that he describes—neurasthenia or neuratrophia. Take a lady just confined who has had loss of blood, we find the pulse thready and frequent, the lips pale, the head hot and general weariness of expression, she is not insane but a condition of nervous exhaustion from loss of blood, and treatment, will restore her to a condition of health. I have a case answering perfectly to his description.

DR. HUGHES, St. Louis.—One of the disadvantages of a short paper is the danger of being misunderstood. Neurasthenia pure and simple is not anæmia, but may co-exist with a state of hyperæmia. As I prefer to call it, neuratrophia is a failure on the part of the nerves, a want of power of appropiating nutritive materials—a want of nutritive power. A common mistake is to put such patients on iron and strychnine. what they really need is nutrition electricity, and rest. Neuratrophia from anæmia is a secondary functional condition; neuratrophia from toxæmia is a secondary condition. I speak of that form which is functional (neuropathic). I do not say that neuratrophia is always a precursor of insanity, it is so not infrequently; you may have neuratrophia from blood-pressure depriving the parts of the normal nutrition as well as by anæmia. There is an amount of people in asylums who are neurasthenic, the result of too rapid functionation and insufficient repair.

Article LXXXV.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, Oct. 26th, 1882.

The President, Dr. Jas. Tyson, in the chair.

Hypertrophy of the Prostate Gland, accompanied by Profuse and Fatal Hæmorrhage. Presented by Dr. J. B. Roberts, for Drs. J. M. Adler, and Wm. Hunt.

The clinical history furnished by Dr. Adler is as follows:

The patient, aged sixty-six years, of medium size, weighing 150 pounds, of regular habits, had enjoyed good health until one year past. On a number of occasions during the past year he has had slight hæmaturia. He passed his urine with ease, and only complained of slight perineal pain. On 12th of Sept. last he arose in the morning in his usual health, but soon after breakfast, he was attacked with sudden, acute pain in the bladder, which he was unable to empty. Dr. Adler saw him in a short time, when the patient complained of great hypogastric pain, and was much prostrated, with a blanched, sallow, cold skin, and a rapid and feeble pulse. A well defined pyriform swelling occupied the hypogastric region extending upwards to the umbilicus. After stimulants and morphine had been given, about one pint of fluid blood was drawn off by the catheter after which, this instrument becoming blocked, a double one was introduced; by means of which, injections of warm water were thrown into the bladder, and another pint of broken down coagula was removed. A solution of alum, twenty grs. to the pint was then introduced into the bladder and allowed to remain. Despite the internal use of ol. terebinth and ol. erigeron, with opium suppositories the hæmorrhage continued, necessitating recourse to the catheter, injections, etc., to free the bladder from coagula. Death ensued on the sixth day from exhaustion induced by the repeated hæmorrhages. The diagnosis arrived at by Drs. Hunt and Adler was carcinoma of the neck of the bladder.

Sectio cadaveris. The autopsy was a partial one, made in the undertaking establishment. When incising the hypogastrium, the distended bladder was at once seen containing clotted blood. This was removed by the hand, through an opening in the viscus, when Dr. Roberts felt near the vesical neck, protruding into the interior a pear-shaped mass about the size and shape of an adult uterus. This, as the members of the society saw, was evidently a greatly enlarged middle lobe of the prostate gland

covered by unaltered mucous membrane. The lateral lobes were also enlarged. The mucous lining of the viscus was smooth and congested, presenting at one point two small circular depressions, with clearly cut edges. Owing to circumstances no further examination of the body was made.

Dr. Eskridge inquired whether the blood removed from the bladder at the autopsy presented an urinous odor? He had treated recently an interesting case of recurring hæmaturia, supposed to be due to a varicose condition of the veins of the vesical neck. The patient was a man aged seventy-seven years, who, five years ago, and at intervals since, had lost considerable blood. The former attacks had yielded readily to ergot, but shortly after the onset of the last one, Dr. Eskridge had found the bladder distended with a large clot which he had been unable to break down by injections of either alkaline or acid solutions. The secretion of urine was suppressed during the last twenty-four hours of the patient's illness, the blood drawn from the bladder presenting no characteristic odor. The man died apparently from uræmia two or more severe chills preceding death, although no convulsions occurred, and he remained conscious to the last. Unfortunately no post-mortem examination was obtained.

Dr. Formad thought that the growth resembled rather a sarcoma than a carcinoma. He had seen two instances of round-celled sarcoma of the prostate. All growths starting from the epithelia of the genito-urinary tract, as well as from the cavity of the uterus, the kidneys and supra-renal bodies, in short growths of all the organs arising from the middle layer of the blastoderm, macroscopically resemble sarcoma, and usually prove to be such when when microscropically examined.

Dr. Tyson said that this specimen possessed a special interest for him, inasmuch as he had had his attention forcibly directed to the differential diagnosis of a simple hypertrophy of the prostate from malignant disease of the organ, by having lately under his care a gentleman where ergot at first proved of much benefit, but in whose case the catheter was soon demanded. This instrument was used with unusual skill and gentleness by the patient himself, notwithstanding which, blood occasionally followed its use. Exceedingly severe pains next developed radiating from the bladder to the testicles, groin and inner aspects of the thighs. Emaciation soon set in and he died at the end of fifteen months. At the autopsy malignant disease of the prostate was found, involving by infiltration the lateral aspects of the bladder and the neighboring parts, so as to compress the nerves, thus accounting for the radiating pains complained of. He would like to know from Dr. Roberts whether his case presented this symptom of radiating pains complained of, and also the source of the hæmmorrhage, as the smooth surface of the

growth, and the healthy condition of the mucous membrane of the bladder are such as to excite surprise.

Dr. Roberts in reply to the various questions proposed said that only having made the post mortem examination he knew nothing beyond the facts given in the notes read. As to the source of hæmorrhage he would call attention to the two small erosions of the mucous membrane of the bladder as the probable source.

Report of the Committee on Morbid Growths. The specimen presented by Dr. Roberts upon microscopic examination is found to consist of the histological elements comprising the prostate gland. There is no evidence of any neoplasm, except a numerical hypertrophy of the structures of the organ. The specimen is an hypertrophic prostate gland.

Caseous Degeneration of the Kidneys, presented by Dr. Roberts for Dr. Dunmire.

Owing to Dr. Dunmire not having seen the woman until within a few hours of death the history is, of necessity, imperfect. She was a married woman, thirty-one years old, whose husband is said to have infected her with some form of venereal disease. The husband had been dead for about one year when the patient first came under treatment. There were no evidences of syphilis, so that the supposed venereal affection of the past had been presumably gonorrhœa. When seen Sept. 14th, 1882, was exceedingly ill, gave a history of general ill health for the past few years, but dated the present trouble some weeks back when she had bathed in the surf while menstruating. This was followed by a chill, since when she had steadily grown worse. When Dr. Dunmire saw her, she complained of sore throat, difficult deglutition, anorexia, sick stomach, pain in the back, with sharp pain running towards the groin, especially on the right side, tenderness over the abdomen, and frequent scanty micturition. The pulse was 140, the temperature 103° and there was profuse leucorrhœa. An unfavorable prognosis was given, which was soon verified by her becoming unconscious and died six hours later.

Autopsy. The abdomen alone was allowed to be examined. All organs healthy except kidneys and bladder. The latter contained a little urine and mucus, its walls were much thickened, and its lining membrane was congested. The left kidney had little true kidney structure left, but was converted into a group of seven or eight cysts containing a white cheesy material of a moderately firm consistence. The ureter was much dilated and thickened for about three inches from the pelvis of the kidney. The right kidney was normal in outline, but when incised revealed one large cyst with creamy contents, and also another small cavity containing a few minute calculi. Several of these could be felt through the walls of the normal ureter, thus

accounting for the ante-mortem renal colic. The perinephritic structures were unchanged, as well as the capsules of the kidneys, although these latter were perhaps more adherent than normal.

Lymphomatous Tumor of Mediastinum. Exhibited by Dr. Little for G. C. Smith of Rondout, N. Y.

The history of the patient from whom these specimens were removed is in brief as follows: A young man at twenty-four years had been but a few days under Dr. Smith's case, having come from Boston where his physician had pronounced him phthisical, and had recommended a sea voyage. During the past few months small nodular masses had developed in the muscular tissue of the right chest walls near the median line in the front, and also posteriorly. The axillary and clavicular glands were involved. Shortly after Dr. Smith first saw him he developed marked dyspnœa and died suddenly, without any evidences of marked lung disease, except, perhaps, some symptoms of pleuritis. There was apparently mitral disease. Anasarca especially of the lower extremities gradually developed.

Sectio-cadaveris. The skin was hard and friable; nodular masses were found disseminated through the muscular tissue of the chest walls, which had undergone some species of degeneration; the costal cartilages presented evidences of a degeneration similar to that seen in the muscles. On removing the sternum, the subjacent tissues are markedly pigmented, and the anterior mediastinum completely obliterated by a mass of the size and shape of the half of a large lemon, which pressed against the heart. The large bronchi were involved in the growth, otherwise the lungs seemed healthy, and evidences of slight pleurisy were found. The pneumogastric nerves were both involved, chiefly the left; and on further dissection the disease was found to occupy all of the lower part of the posterior mediastinum, involving the contiguous osseous tissues. The nerve involvement caused the sudden death. The diaphragm was also involved in the lower portion of the growth. The four portions of the growths shown to the society are, 1st, one of the subcutaneous nodules; 2nd, a small portion of left lung near its root; 3rd, a portion of the anterior mediastinal growth with part of trachea, bronchi and aorta; 4th, one quarter of the tumor which involving the diaphragm, projected from the left thoracic walls into the chest-cavity.

Dr. Formad inquired whether there were any other evidences of cancer in the remainder of the body.

Dr. Little replied that there were none detected.

Dr. Formad then said that he was unaware of any specimen of carcinoma of the mediastinum on record, and moved the reference of the specimen to the Committee on Morbid Growths, as it was probably a sarcoma.

Report of the Committee on Morbid Growths. The mediastinal growths are found on microscopic examination to consist of a mass of hypertrophic, lymphatic glands, much pigmented. There are also seen adipose and fibrous tissues in a state of active proliferation.

Cirrhosis of Liver in the Stage of Enlargement. Exhibited by Dr. E. T. Bruen.

T. W.—aged twenty years, colored, has worked on farm since boyhood, and has been much exposed to weather. His habits were temperate, he was free from either syphilitic or malarial taints. Father is still alive, the mother died of phthisis. He was never robust, but had had only one severe illness, viz., typhoid fever, from which he convalesced perfectly, but he readily "took cold." He was first seen by Dr. Bruen at the University Hospital in Jan., 1882, when he gave the following history:

Abdomen began to swell two years ago without either pain or tenderness. Was obliged to rise at night to urinate. The abdominal swelling increased, and the previous regular bowels became constipated. Occasional sharp, shooting pains were felt across the chest when lifting weights or working hard, and also slight dull pain over liver, lasting for a few moments only. When seen abdomen measured fifty inches. On 19th Jan. he was tapped, nineteen quarts of fluid being removed, rendering plain a much enlarged liver, covered with smooth, nodular elevations, with the apex beat of the heart displaced upwards into fourth interspace. March 18th, five gallons more fluid were removed, after which pleural and bronchial complications arose, which soon subsided. May 6th paracentesis by capillary needle was resorted to, which was followed by much localized tenderness around the site of the puncture. Symptoms of peritonitis developed next day which terminated life the same evening. During life, the diagnosis was most difficult and interesting. The enormous size of the liver, the palpable bosselation of its surface giving a sensation like that of crepitating tissue, as though fluid lymph had been thrown out, and finally, his abstemious habits with absence of either syphilitic or malarial taint, suggested malignant disease. His age, the exceesive rarity of primary carcinoma or sarcoma of the liver, with his family history all negatived this view. He had had some dyspepsia. Enlargement of the liver, connected with catarrh of the bileducts, would have presented symptoms of jaundice and intermitting temperature, terminating by death from cholesteremia. The case then, was one of simple cirrhosis.

Sectio-cadaveris. The abdomen contained six gallons of purulent fluid. Both the parietal and visceral peritoneum were covered with a thick coating of inflammatory lymph, tinged with blood, from multiple capillary hæmmorhages. The

abdominal veins were all replete with blood. The liver weighed nearly five and a half pounds, was of a nutmeg appearance on section, was indurated, and presented a bossellated nodular appearance. The gall bladder was thickened and contracted about two-thirds in bulk. The bile ducts were normal. The spleen was covered by a pseudo-cartilaginous capsule, but was otherwise normal, as were also the stomach, pancreas, intestines, kidneys and supra-renal bodies. The abdominal lymphatic glands were slightly enlarged.

Dr. Seiler remarked that having seen the case during life, it was almost impossible to divest one's self of the idea of malignant disease. He thought that the projections were the unaltered portions of the liver which had been compressed and squeezed out by the contracting interstitial tissue.

Dr. Bruen remarked upon the obscurity of the etiology.

Dr. Tyson asked Dr. Formad, who had examined the specimen microscopically, whether he considered it to be in the first or second stage of the affection.

Dr. Formad replied that he considered it to be in the commencing second stage and detailed the microscopical appearances.

Dr. Tyson after briefly adverting to the causation of cirrhosis, said that his reason for asking Dr. Formad whether he considered that the organ was in the first or second stage of cirrhosis was, that some few years since, an important insurance case had been argued in our course where the defense was set up that the man had not a cirrhosed liver because it was enlarged. For his part he had no doubt that a liver could be in the second stage of cirrhosis and yet be enlarged; there might be enlargement from fatty infiltration concurrent with interstitial inflammation.

C. B. NANCREDE, Recorder.

Article LXXXVI.

Semi-Annual Meeting of the Linton District Medical Society, held at the Court House, Mexico, Mo., Nov. 14 and 15, 1882.

The Society was called to order Tuesday afternoon, Nov. 14, by the President, Dr. A. W. McAlester, of Columbia. After a prayer had been offered the business of organizing began and was soon perfected. After this a patient of Dr. Geo. Hamilton was presented and was referred to a committee to report upon. A majority and minority report were submitted, the case being one of aneurism, but whether partly venous or not could not be elicited from the discussion which followed the presentation of the case.

When the society reassembled in the evening, the first business transacted was to admit three new members. Then followed the reading of papers, Dr. W. W. Rodman, of Mexico, presenting an essay on the Therapeutic Uses of Electricity which gave him an opportunity of presenting a fine apparatus and electrodes. The paper was listened to with great attention and elicited quite a lengthy discussion. After the termination of this Dr. T. J. Baskett, of Mexico, read a paper on Catarrh of the Uterine Cervix, which provoked a full discussion of the subject in all of its bearings. The last paper of the evening was by Dr. J. M. Foreman, of Jonesburgh, who chose for his subject, Wounds and Injuries of the Peritoneum. The remainder of the evening was spent in the discussion of the treatment of traumatisms to the peritoneal membrane.

The next morning the society held another session the reading of the history of a Case of Giant Urticaria by Dr. Ohmann-Dumesnil, of St. Louis, being the first on the programme. After the discussion of the subject had concluded, the subject of wounds of the peritoneum was taken up again and at its termination, Dr. F. J. Lutz, of St. Louis, read an exhaustive paper on the Rational Treatment of Rupture of the Urethra from direct External Violence. The discussion over the paper was animated, though not very long.

Dr. Rothwell presented a case of scalp disease which was referred to a committee consisting of Drs. Foreman, Douglas, Reid and Ohmann-Dumesnil. The committee after examination pronounced it a case of favus, which elicited the interest of the members present. After the treatment had been fully described Dr. S. W. Russell read a paper on Antiseptics in Surgery. A

long discussion followed this and after the transaction of some further business the society adjourned to meet in Columbia, Mo.

The officers of the Society are:

President.—Dr. A. W. McAlester, Columbia.
First Vice-President.—Dr. W. W. McFarland, Mexico.
Second " " —Dr. Geo. Hamilton, Callaway Co.
Secretary.—Dr. T. J. Baskett, Mexico.
Treasurer.—Dr. Woodson Moss, Columbia.

The following is a list of members:

Drs. W. B. Adams,
T. D. Baird,
E. A. Ball,
S. B. Barks,
T. J. Baskett,
S. T. Buck,
W. H. Douglas.
J. W. Dreyfus,
J. C. Ford,
J. M. Foreman,
E. N. Gentry,
J. F. Graves,
J. F. Hanna,
Geo. Hamilton,
J. E. Harris,
J. J. Holly,
W. Humphrey,
W. F. Humphries,
J. L. Jones,
J. F. Keith,
W. H. Lee,
W. T. Lenoir,
A. W. McAlester.
Drs. J. M. McComas.
N. W. McFarland.
H. H. Middlecamp.
P. J. Mitchell.
F. M. Moore.
W. Moss.
J. S. Pearson.
W. Pipino.
W. L. Reid.
W. R. Rodes.
—— Rodgers.
W. W. Rodman.
T. P. Rothwell.
S. W. Russell.
J. B. Schull.
M. M. Scott.
Isaac Sinclair.
W. B. Smith.
A. Titus.
N. D. Walker.
F. Welch.
Martin Yates.

A full report of the proceedings will be published in future numbers of the JOURNAL.

The visiting physicians were right royally treated not only by the citizens of Mexico, but had the good fortune to meet with some of the city's fair daughters and we fear some of our friends did not leave heart whole. We know some who were quite affected by the "silver" rays of the moon and expect to hear from them soon.

Clinical Lecture.

Article LXXXVII.

Cases from Prof. Borck's Clinic at the College for Medical Practitioners of St. Louis, Mo.

Gentlemen! Here is a little boy six years old, I wish you would observe his walking closely, and see whether you can tell by his gait, that there ever has been any injury to his feet. "Walk up and down my boy!" You see the child walks perfectly, no limping, nothing! that would lead us to suspect any injury, and certainly not such a grave one, as this little fellow did receive about four months ago. This boy while jumping off and upon a heavy lumber wagon, which was in motion at the time, slipped and left foot was caught between the axle of the wheel, tearing out all the soft parts and the 5th, 4th, 3d and 2d metatarsal bones, "which I here show you," leaving the four toes hanging down loosely, and completely separated from the other part of the skin; the toes were cold, part of the skin of the foot was lost, the lacerated tissue was hanging about the ghastly wound, the middle- and external cuneiform and the cuboid bone were exposed; the first metartarsal bone and the great toe were uninjured.

Here what to do? With children make it a rule never to perform primary amputation if any way posible; and guided by this, I cut all the loose tissue carefully away, cleansed the wound with warm carbolic acid water, pressed the skin of the sole of the foot, in as natural a position as possble, pinned the toes to it, supporting the whole with cotton batting, the loss of skin was from the dorsal side, and though I might have stitched the two flaps of skin together, I did not do it, for if there would be union, there would be loss of the breadth of the foot also, therefore I left the wound open, filled the cavity up with cotton batting saturated with carbolic acid water, covered with antiseptic gauze and bandaged it; there was no hemorrhage. On the fifth day I removed the dressing, granulations had nicely sprung up, but the boy had a chill the next day, fever set in, he was restless, and a little delirious, suppuration became abundant; you all know what that means, I put him at once upon the pot. iod. and ¼ grain of morphine at a dose to tranquilize him. I feared for the child, but luckily the unfavorable symptoms passed off; healthy granulations again appeared, and became profuse, the whole wound filled up, the granulations extended far above the level of

the foot. The mother, of course, was scared of that proud flesh, and I felt very proud of the proud flesh, knowing that granulating wounds will contract. I let it go on for a time, then applied pressure with a bandage to keep it in check, and finally the wound healed over, and as you see the cicatrization is solid and very large, the foot has almost its natural shape. This is a case that gives joy to the surgeon, and the boy may well say, sweet is my pleasure after my pain.

Suppose that amputation had been necessary, the question then would be, where to amputate?

I would have amputated the foot just about the ankle joint. You may ask why not save the heel? I will give you my reason Chopart's and Syme's operation are out of date (here followed, explanations of the two operations), on account of the great improvement of artificial limbs, no good nor useful artifical foot can be adapted to the foot, where either of the two mentioned operations has been performed, (here the reasons were given) but when a foot is amputated above the ankle, a perfect artificial foot can be made, closely imitating the natural one, and the artificial ankle joint will resemble the natural one of the other side, and the patient can walk in harmony with his feet, without a cane and comfortably.

It is only a few years ago that I made the mistake of performing Chopart's operation upon one, and Syme's operation, upon the other leg of one of my patients at the same time, under the mistaken idea of saving tissue. That poor fellow can not walk to-day no fixing of any kind that has been tried will answer the purpose. He refused to have his feet amputated again. If it was myself, I would run the comparatively small risk of a secondary amputation, with the assurance of being able to walk with artifical feet.

This little boy was sent to me by Dr. Bates, of O'Fallon, Ill. He is nine years old; his mother states, that when he was nine months old, one morning, she observed his left arm and left leg to be very heavy; she sent for her doctor; he found the child was paralyzed. You see the leg is shortened; he walks upon the outside of the foot, and we have here a case of talipes equino-varus paralyticæ. This is the form we generally meet with after infantile paralysis. This cannot be mistaken for congenital club-foot, for in this form we have always atrophy of the limb, and shortening, as you here observe; the limb is also cold; with a little manipulation, I can bring the foot into nearly a normal position, and can hold it there with my hands. The question now is, can I, by some means or other, keep it there? and if such is the case, will it remain so?

Gentlemen, this is a case that brings no joy to the surgeon, and to the parents, nothing but sorrow and grief. The mother,

in the evening, puts her bright and healthy little boy into the cradle, and during his sweet slumber, a horrible disease has done its work. The child is paralyzed in one or more extremities; the upper extremities generally will recover, the lower, never completely—it is done forever, beyond any repair.

We shall study more about this affection, during my lectures next week.

We can promise nothing to the parents. What can be done for the child? Tenotomy is of no use here; the boy has already worn some kind of apparatus, some years ago, which was left off. Some of you have seen me, some fourteen days ago, dress this foot with an adhesive strip of plaster, that kept the foot in position. This was covered with the plaster of paris bandage, to keep it in its place, and left on until to-day, and you see, without any harm, now, as we remove the dressing, the deformity comes back. If I could have the child under my observation for any length of time, and attend to this simple dressing, he might be benefited thereby. Such not being the case, I will apply a simple roller bandage to keep the foot in position, and adjust this shoe which I had made. You see it is an ordinary laced shoe, with a light wooden sole (English willow wood would be best) one and a half inches high, for the leg is that much shorter. Remember how to take the measure: Strip the patient and place some blocks of wood or a book under the affected limb; you take a plumb line and hold it here at this spinal prominence of the neck; you must either add to or subtract from the layers of wooden blocks under the foot, until the plumb line falls between the nates. This is the only correct method to measure the length of a leg, and unless the patient is straight, the shoe would do no good whatsoever. This laced shoe has but one bar, (outside) made of spring steel, with a joint and a pad about nine inches long, and a girth attached which goes around the leg. You see the shoe fits well and thus will correct the varus position. Now we will here fit an artificial muscle of rubber tubing, which will correct the equine trouble. Jump off my boy! now walk. You see, he walks at once, straight. The apparatus looks neat. It at first is a little uncomfortable to the child, but he soon will become accustomed to it. He says it feels tolerably well now. We will now instruct the parents to use massage, soap and water, and a stiff brush is the best to begin on; and ask that the little gentleman will be brought back again to us, after a time, so that we may observe the progress.

Here is a little fellow four years old; his name is just as nice, it is John. He has congenital hypertrophy of the tonsils; let us see whether we can examine him. How well he opens his mouth, and keeps it open. We must train children to all these little things. I instructed the mother to ask the child often during

the day, to open his mouth and show his tongue, but keep it in; he also holds the depressor himself and does it well. It is only in the last two months that this child begins to speak, but indistinctly. His breathing was always heavy and through the mouth. He could always swallow without any difficulty, but could not suck when he was a baby. What can be done for him? Now gentlemen, you have received a very good precept the other day, from one of the Professors, in his lecture, that is, not to excise enlarged tonsils at once, but to treat them first for four or six weeks with the spray; they may thereby be reduced or cured, and not be in a hurry to cut when there is no immediate demand for interference. Now let me call your attention to the difference between congenital hypertrophied tonsils, and acquired chronic enlargement of the tonsils. The latter a common affection in children, ordinarily trifling, may sometimes become serious and dangerous to life. This enlargement depends upon semi-solid organizable material effused into the tissue connecting the cellules, of which the gland is composed. This may become degenerated and be reabsorbed, and in addition, with some mild treatment is cured for the time being. But it may become organized, and then the growth becomes more firm and remains permanent; then nothing but extirpation will bring relief. And the best is to take out as much as you can at once—all if possible. We are told by some authors, to remove but a small slice, and the rest will become smaller and atrophy. Now I think that this atrophy is not a reality, but depends upon cicatrization. The cut surface cannot heal by primary union, but must heal by granulation, and then, like in all wounds, we have contraction. Half operations may not protect the sufferer from relapses. Children with enlarged tonsils are very often deaf, and this is cured sometimes by the removal of the gland. The mechanical explanation is, that the enlarged tonsils block up the Eustachian tube; but I think that the deafness is due rather to chronic thickening affecting the mucous membrane of the fauces near the enlarged tonsils. (Here was given a description of the anatomy and physiology.)

Now in regard to congenital hypertrophy of the tonsils, it is the same as any other congenital hypertrophy in other parts of the body, and of which I spoke in my lecture on tumors. Such hypertrophy disappears often spontaneously, without any or very mild hygienic treatment, or it may remain stationary at a certain point for life, or it may after a time begin to grow again.

As this child begins to speak now already, without having received any treatment, and is not in any danger, it is worth while to try the spray. We will therefore turn the patient over to Prof. Rumbold, who will report in time, his opinion and progress of the case.

Periscope.

Article LXXXVIII.

MICROSCOPY.

Tenacity of Life of Bacteria.—The demonstration of the intimate relation of bacteria to certain fevers and other diseases would seem at first sight to greatly simplify the work of the physician in searching for efficient remedies. Put in plain English the problem is: find some element or compound that is fatal to bacteria, and administer it in the way best calculated to reach the mischievous fungi in the patient's blood. But the problem is easier stated than solved. The lower forms of life which appear to cause the trouble are able to live and thrive under the widest possible range of conditions; so that, so far as known, any reagents that will kill them would be much more quickly fatal to the patients.

The eminent English chemist, Edward Frankland, recounted the other day, at a meeting of the Society of Arts, some experiments made in his own laboratory, showing the indifference of bacteria to conditions that would speedily destroy higher organisms.

A quantity of mutton broth was affected by bacteria, and when swarming with these organisms, it was introduced into a vessel filled with mercury, and standing over that liquid. Then various gases were put into these globes, and, of course, in contact with this liquid teeming with bacteri. Oxygen was tried, hydrogen, nitrogen, carbonic acid, and all other ordinary gases, some of which were respirative by animals, and some of which were believed to be beneficial to plants; but the bacteria seemed to delight equally in either of them. They get on quite as well in carbonic acid as they did in oxygen; they could live for weeks without the presence of a trace of oxygen in the liquid, with nothing but pure carbonic acid.

If the experiments had gone no further, they would show that these organisms had an extraordinary tenacity of life. But cyanogen was now introduced into the flasks, and, although they

certainly did sicken a little under it, they recovered a little in the course of a week or so, and went on living in that gas in a fairly healthy condition. Sulphurous acid—the mutton broth itself being, of course, saturated with gas, and the atmosphere of the glass globe consisting of nothing else but sulphurous acid—seemed to have very little effect on them at all; their motions were not stopped, and they seemed to be as lively after the application of it as before, and the same was the case with several other reagents which were tried.

It is barely possible that these vicious organisms may be reached and killed by some drug in doses which the human system can tolerate; but the prospect certainly is not bright. Prevention rather than cure seems to be the end best worth working for.—[*Gaillard's Journal.*

PRACTICE OF MEDICINE.

EXTENSIVE PLEURAL EFFUSION CAUSING SUDDEN DEATH.—At a recent meeting of the Dublin Pathological Society, Dr. J. W. Nune reported a case of a woman fifty years of age, who came to the hospital with the statement that she had been ill for three weeks with bronchitis. Examination revealed immobility of the right side, and dullness, extending up to within an inch and a half of the clavicle. There was much distress, with rapid breathing, and the patient was extremely ill: she was anæmic and somewhat cyanosed. The left lung was hyperæmic, the heart slightly displaced to the left. The patient died rather suddenly during the night. the autopsy showed collapse of right lung, the pleura containing eighty ounces of serum; masses of lymph were found upon the pleural surface. The patient died from collateral congestion of the left lung, and a systole heart due to the great obstruction.—[*Cin. Med. News.*

FERRUGINOUS LIVERS.—The interesting occurrence of an excessive quantity of iron in the livers of anæmic patients has been noted in Germany. Stahel and Lindenlang each describe a case. The *Lancet* says that Marchand has lately described the liver of a phthisical patient, aged sixty years, which presented an unusual brownish-red color, associated with evident cirrhosis. The microscope showed an infiltration of the hepatic cells and of the interstitial connective tissue by pigmentary corpuscles, which

gave the characteristic test for iron with yellow ferrocyanide. A chemical analysis showed that the ashes contained not less than 30 per cent. of iron. It has been supposed that the excess of iron is the result of an abnormal destruction of red corpuscles in the organ, but it is open to question whether it is more than the result of the free administration of iron by the mouth.—[*Med. and Sur. Rep.*

FAMILY HISTORY IN RELATION TO PULMONARY CONSUMPTION.—In an article on this subject in the *British Medical Journal*, Robert Robertson comes to the following brief summary of the results in relation to the infectiveness of phthisis pulmonalis.

1. Among 100 individuals affected, about one-third have recognizably been exposed to the disease within a period having an appreciable connection with the onset of their own illness.

2. Among married couples, of which one person has been affected, there has been immunity from disease in the other person in, at least, 80 per cent. of those inquired into; and that, among the children in the families represented by patients under observation, immunity from disease occurred in nearly 69 per cent.

3. The existence of phthisis in members of the preceding generation was attended with an increased frequency of its occurrence in the succeeding one, amounting to nearly 13 per cent. Hence it may be concluded that:

1. Probably, in every case of phthisis, the inception and presence of a specific bacterium is essential to the destructive process.

2. Probably there is a certain risk of communication of the disease to unaffected persons, and *cætera paribus*, the greater, the more intimate the association.

3. Continued association with a consumptive person is probably not in itself sufficient to originate the disease in any instance.

4. The preparation of the lung-tissue by a chill, debility, etc., is probaby as essential to the destructive process as the presence of the specific bacterium itself.

CAUSES OF TRANSITORY ALBUMINURIA.—Fischel in the *St. Petersburg Med. Woch.* has an article on this subject which we find condensed in the *Lancet and Clinic* as follows:

It is a well known fact from the publications of Ultzmann, Edlefsen, Furbringer and others, that a temporary albuminuria has been observed in perfectly healthy individuals. In these cases it was possible to trace the cause to anæmia, great muscular exertion, depressing mental emotions, etc. Fischl adds another variety of cases, in which, likewise, no organic lesion of the kidneys exist. He relates the clinical history of ten cases treated for the following disorders: cardialgia, gastralgia (due in one case to ulcer, in another to carcinoma of the stomach), colic, enteralgia, hepatic colic—in short, abruptly developed, painful affections of the abdominal organs, which are accompanied by manifestations of shock of more or less severity, (pallor, muscular weakness, threadlike pulse, etc.) During the period of the attack the quantity of urine secreted was considerably diminished, the specific gravity high and albumen gradually disappears after the abatement of the attack and its threatening symptoms, to return, however, upon the reappearance of the paroxysms. The cause of this transitory albuminuria Fischl refers to the shock, which is common to all these various attacks. In consequence thereof the blood-pressure becomes lowered, the arteries contract and stagnation of blood occurs by preference in the large veins of the abdominal organs. Hence, there takes place in the kidneys a venous stasis accompanied by arterial anæmia, and very low blood pressure. This is the very condition, which, according to the theory of Runeberg, is requisite to effect a transudation of albumen from the malpighian glomeruli. With the recovery from shock and re-establishment of the renal circulation, the transudation of albumen ceases. Fischl, therefore, regards albumen in these cases as a symptom of shock, which view is substantiated by the fact that in cases in which the collapse is not called forth by painful paroxysms, albumen may also be detected in the urine. Thus Fischl relates cases in which after great loss of blood (metrorrhagia and hæmateuresis) and severe diarrhœa, albuminuria was a manifest symptom.

OBSTETRICS AND GYNÆCOLOGY.

NOTES OF TWENTY-ONE CASES OF EXTRAUTERINE PREGNANCY.—At the late meeting of the American Gynecological Society, Dr. T. Gaillard Thomas read a paper on the above subject, of

which the following abstract is given in the *Amer. Jour. Obst. and Diseases of Women and Children*:

Until the last decade very little special attention has been paid to the clinical study of extrauterine pregnancy. In a general way it has received attention in works upon obstetrics, and the physiology and pathology of the subject had been carefully investigated, but its clinical bearings and collection of histories, and the careful collation and analysis of the symptoms which should arouse the fear and suspicion of the practitioner, and give the most appropriate treatment, had received an amount of attention entirely incommensurate with their paramount importance.

For the pathologist there were many varieties, but for the practitioner there are naturally but three, namely, tubal, interstitial, and abdominal. The history of the twenty-one cases which had fallen under his observation was then briefly given. The symptoms which most frequently led to diagnosis were the symptoms of normal pregnancy accompanied by (1), irregular gushes of blood ceasing and suddenly recurring without assignable cause; (2), fixed grinding pain in one iliac fossa, and perhaps down the corresponding thigh; (3), paroxysmal pains occurring with severity, marked by constitutional symptoms and in a short time passing off, to recur with increased violence in a few days; (4), symptoms of abortion without an appearance of the fœtus; (5), expulsion of membrane without accompanying fœtus.

The physical signs which sustained the validity of these symptoms were, 1st, increased size in the uterus and displacement of it upwards, forwards, or laterally; 2d, evidence of vacuity in it, yielded by the sound or tube; 3d, the presence either to one side of the uterus or behind it of a cystic tumor somewhat painful to the touch, rather immovable, giving to palpitation a sense of rather obscure fluctuation, and in some cases yielding the sign of "ballottement." In a few of his cases this sign had been plainly distinguishable, but this had been an exception to the rule, and the evidence against the existence of the condition. In cases of advanced gestation of the ectopic variety, the placental murmur, the fœtal heart, and the movements of the fetus will of course present themselves as valuable signs; but in tubal pregnancy, the kind most commonly encoun-

tered, death will very generally occur from rupture of the fœtal nest before they become at all available.

As to treatment, he proposed simply to give rules which he thought his experience would induce him to adopt in the future.

First, If an ectopic tumor be discovered and its nature pretty well settled before the end of the fourth month of gestation, he would destroy the vitality of the child by electricity in preference to all other methods which have been proposed.

Second, Should the fourth month of gestation be passed and surgical interference be called for, laparotomy or, if the tumor be low down in the pelvis, elytrotomy should be preferred to the use of electricity, which leaves a large fœtal body to undergo absorption inside the body of the mother.

Third, Should the pregnancy be abdominal, the practitioner might watchfully await the full term of gestation, and deliver then, by laparotomy or by elytrotomy, combined with the forceps or manual delivery.

Fourth, Should full term be passed and the fœtus be dead, the practitioner should wait and watch, if possible, until Nature demonstrates the outlet by which she desires the extrusion to be effected, then she should be aided. If, on the other hand, bad symptoms under these circumstances, at any time, showed themselves, laparotomy, under strict antiseptic precautions, should be promptly resorted to.

Fifth. Should rupture of the fœtal nidus have occurred before diagnosis has been fully made, the practitioner should wait and see whether Nature is powerful enough to overcome the shock and control hæmorrhage, then, further, if the patient is going to escape the dangers of peritonitis and septicæmia. If then favorable results do not occur or if hæmorrhage is about to destroy the patient immediately, or if septicæmia attacks her lately, laparotomy, followed by antiseptic cleansing should be promptly adopted.

RETENTION OF FŒTUS DURING SIX YEARS—REMOVAL OF BONES THROUGH THE ANUS.—Mr. Hough relates a case of a patient who in September, 1874, became pregnant for the first time, and menstruation ceased. In May she sent for Mr. Hough, on account of a slight discharge of clotted blood and some pain. Labor appeared to be commencing, and she was recommended to keep quiet, and send for a nurse; no vaginal examination

made. In a few hours pain abated, and discharge ceased; at this time, distinct fœtal movements felt, and fœtal heart heard. She was seen from time to time till the autumn, but nothing occurred. The shape of the body altered, the tumor being more to one side, and the milk disappeared. In October she was seen by an eminent metropolitan surgeon, who diagnosed ovarian disease, and recommended her liquid extract of ergot; and, after taking this for a fortnight, the catamenia came on, and had continued regular from that time to the present. At the beginning of the present year she consulted Mr. Hough. At this time the great pain she suffered rendered examination necessary. On examination *per rectum*, a large cavity, in which the bones of the fœtal head could be felt, was discovered, and one by one were extracted the fœtal bones, through the opening in the bowel, by the finger. The patient did extremely well, and at the present time (June 2d) no trace of the cavity remains, and she is in perfect health.

Dr. Humphrey gave an account of a similar case. The patient aged twenty-four, had been married a year when the catemenia ceased, and breasts and abdomon began to enlarge, and for a time there was morning sickness. At full time symptoms of labor (recurring pains, with colored discharge) came on. The labor was unusually protracted. Upon examination found os closed and neck of uterus small, hard and firm. Enlargement of the abdomen was greater on right side than on the left, and did not present the oval outline of the gravid uterus. Pains returned at intervals of a week or ten days for two months. She then became an in-patient in hospital, complaining at this time of constant pain in lower part of the body, and of a blood-stained, offensive discharge from vagina. On examination a swelling was found occupying the lower part of the abdomen, extending from symphysis pubis to half inch above umbilicus; was dull on percussion. Os and cervix uteri were as in ordinary unimpregnated condition, and so undilatable it was found impossible satisfactorily to explore the interior of uterus. During her stay in hospital two fœtal nails passed *per vaginam*. Two months later she complained of severe abdominal pain, and had a rigor; in a few days began to pass a large number of fœtal bones by anus. From that time began to regain health and strength, and the catemenia since re-established. Dr Humphrey recently examined patient; there was still a firm swelling

in pelvis, containing probably some bones, but nothing could be discovered by the finger in the rectum or vagina.

The important practical lesson to be dednced from these cases, and others like them which have been recorded, was that the result is often favorable when they are *left to themselves*. The chief dangers were in the earlier stages of extra-uterine fœtation; but when the later stages were reached the prognosis was, on the whole, good.—[*British Med. Jour.*—[*Louisville Med. News.*

SPONGE TENTS.—Dr. Fränkel, gives in the *Centralblatt für Gynäkologie*, his method of using sponge tents; which must commend itself for its safety. He rubs it down with salicylated cotton, rolls it in coarsely pulverized iodoform, until its surface is thickly coated. After insertion, he packs iodoform gauze around the vaginal portion of the uterus. The vagina instruments used, operators' hands, etc., are all to be thoroughly disinfected.—[*Obstetric Gazette.*

MENTAL AND NERVOUS DISEASES.

THE CURABILITY OF EPILEPSY.—Dr. Ferrand has presented a thesis on the results of treatment of epileptics in the Salpêtrière, in which eighty-nine cases are reported treated with bromide of potassium. Twelve cases were decidedly benefited, fifty-one were improved, sixteen slightly benefited, and ten received no benefit whatever. The manner of administering the bromide is important. At first two or three grammes are given daily, increasing the dose every fifteen days or every month, until the daily quantity reaches, for women, five or six grammes, and for men six or eight grammes. The use of larger doses than this is severely criticised. Opinions differ as to whether the bromide ever cures epilepsy. Dr. Ferrand finds that many of the accompanying troubles are much modified, such as the nervous state, maniacal delirium, and the insane impulse. The intellectual troubles are also influenced for the better. The most frequent ill results of improper methods of administration are headache, somnolence, impaired locomotion, gastric irritability, constipation, anæmia, feebleness, etc.—[*Boston Med. and Surg. Jour.*

A PUPILLARY PHENOMENON OBSERVED IN CERTAIN MORBID CONDITIONS IN CHILDHOOD.—Dr. Parrot records in the *Revue de*

Médecine for October, 1882, a number of observations made by him in regard to a reflex dilatation of the pupil, occuring in certain pathological conditions in young children. In these affections, dependent or not upon evident lesions of the nervous centers, accompanied or not, by convulsions, but always by coma, if the skin of the epigastrium or of any other part of the body be pinched, there follows a momentary dilatation of the pupil. Among the affections in which this phenomenon is observed are tubercular meningitis, hæmorrhage beneath the pia mater, some cases of chronic hydrocephalus, and certain other undefined conditions in which the contents of the cranium are increased out of proportion to its capacity. In other comatose conditions, usually without convulsions, there is no response of the pupil to even violent pinching of the integument. In these cases there may be œdema or marked congestion of the pia mater, but the factor of cerebrel compression is absent. From his present observations the author is unable to determine the precise diagnostic or prognostic value of this phenomenon, but he formulates one conclusion viz.: In a child a comatose condition, whether there be convulsions or not, if the pupils do not respond to peripheral itritation in the manner indicated, we can exclude meningitis and hœmorrhage beneath the pia mater—the child is suffering from asphyxia and his death is imminent.—[*Med. Record.*

OBESITY AND ITS TREATMENT.—Ebstein, of Wiesbaden, describes a new dietetic method for the relief of obesity. He does not believe in "Bantingism,"and states that it produces inanition which may be injurious. Dr. Elbstein contends that a diet of albuminous and fatty matter tends to check deposit of fat, and that it is the sugars and starches which are to be left out in an anti-fat regimen. He gives bread, however, and green vegetables, peas and beans, but no potatoes. The addition of fat to the diet-list has the advantage that it produces satiety sooner and the patient does not eat so much.—[*Med. Record.*

Editorial.

Article LXXXIX.

POISONING BY CARBOLIC ACID.

Poisoning by Carbolic Acid Treated by Repeated Glycerine and Water Injections and the Injection of Two Pints of Water into the Stomach followed by the Hypodermic Injections of Ether. Reported by M. Springer in the *Revue de Médecine*, p. 778. Sept. 1882.—Two patients with typhoid fever in the service of Prof. Bouchard, one aged fifteen and the other thirty-eight, were directed to have injections of carbolic acid.

It was intended to employ for each, fifty centigrams of carbolic acid in the form of carbolic acid, 4; alcohol 1, in an injection of sixty grams.

By mistake forty-eight grams in a solution of ninety-six per thousand were employed. Both patients complained of pain in the stomach followed by severe colic. In twenty-five minutes both were in a profound coma.

Large injections of water were immediately employed. The intestine did not act and retained the injection. A sound was attached to the extremity of the syringe and the rectum was emptied by aspiration. This process was repeated many times, employing five or six litres (10–12 pints). An hour and a half after the injection the temperature in the rectum was 36°.95° F. in one and 35°.7 (96°.25 F.) in the other. The pulse in one was 104 irregular, but strong with hurried respiration.

In the other the pulse was very feeble and irregular; a quarter of a second sometimes elapsing without a beat. Respiration 54 and hurried. Both were bathed in perspiration and both were in a profound collapse.

Two hours after the injection M. Bouchard directed that the patients should swallow water in order to favor the elimination of the carbolic acid by the urine.

It was impossible to make the patient swallow, and then a

tube was introduced by the œsophagus into the stomach and a litre (two pints) of water was injected. A half hour afterward a subcutaneous injection of ether was employed. Immediately afterward a reaction appeared. The patients both aroused from their stupor and opened their eyes, executing movements and not complaining of any pain or feeling pain on pressure upon the abdomen. The patients were feeble and had no recollection of what had passed.

Seven and a half hours after the accident both had a chill with a keen sense of cold speedily succeeded by reaction and sleeping. Five hours after the accident the temperature was 41°.3 (106°.34 F.) in one, and 41°.8 (107°.24 F.) in the other.

The temperature subsequently fell to its grade before the accident which was for one 37°.5 (99°.5 F.) and for the other 40° (104° F.) Both patients went through their fever as if nothing had happened.

A point of great interest to consider is the rapid absorption by the large intestine. It is evident it is impossible to determine the amount of carbolic acid absorbed since a half hour after the introduction large quantities of water were injected. But that which forcibly strikes us is the fact that in twenty-five minutes after its introduction both patients were in a profound sleep.

One would suppose it to be a sufficiently short space of time for a poisonous dose of carbolic acid to be absorbed by the mucous membrane.

We see from this that intestinal absorption is very rapid.

As to the irritating effects upon the mucous membrane, it is impossible to take exact account but they were manifested with great activity otherwise the severe pains would not have occurred immediately after the injection. After the recovery no pain or tenderness existed. The general effects were manifested under the form of collapse of four hours' duration accompanied by failure of the circulation, the pulse being very feeble, compressible and irregular; the respiration short and accelerated; the perspiration profuse and the suppression of urine complete.

The point of most interest is the effect of carbolic acid upon the temperature of the body. This effect was temporary, the temperature subsequently rising to as high a grade as it had been previously observed.

Reports on Recent Progress in Medicine.

Article XC.

Report on Dermatology. By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Treatment of Zoster.—M. Faure recommends (*Journal de Médicine de Paris*, Sept. 16, '82) the following treatment:

At the beginning a slight purgative, if necessary, then general sedatives against acute pains, such as opium, cherry laurel, belladonna, ether, chloral, etc. As local treatment, inunctions with an anodyne liniment, then powdering with emollient or inert powders as starch, subnitrate of bismuth, talc, oxide of zinc, etc.

If no vesicle is ruptured, it is preferable to cover each patch of eruption with flexible collodion, and, before it has had time to dry, the dressing is completed by applying a thin layer of cotton batting over each group of vesicles. The whole tract of the eruption may then be covered with a wider and thicker layer of the cotton.

Against the persistent neuralgias, recourse must be had, at first, to hypodermic injections of morphia or even of atropine, and the internal use of arsenic, two to eight milligrams per day, progressively.

Syphilitic Bacteria.—MM. Martineau and Hamonic described before the Academy of Science of Paris, the procedure employed by them to demonstrate the existence of a microbion peculiar to syphilis. After having excised a syphilitic chancre, they placed it in a certain quantity of culture *bouillon*, prepared according to the method of Pasteur, and soon found in this liquid a considerable number of bacteria. A small portion of this liquid was then injected into the cellular tissue of a young pig and the next morning found analogous bacteria in the blood of the animal. About one month later there were developed on the abdomen, syphilitic manifestations similar to papulo-squamous syphilides, the hair also falling out.

The serum taken from an infecting chancre and inoculated

on another pig gave rise to similar lesions and to the presence of bacteria in the blood of this animal. It seems demonstrated that human syphilis can be developed in the pig; but, according to these experiments, it has not been transmissible from these animals to others of the same or of different species. These experiments also demonstrate the existence of a syphilitic bacterium since the two inoculations made under different conditions gave rise to the development of an identical organism in both animals. We find this item in *le Jour. de Méd. et de Chirg. Prat.* for Oct. 1882. It seems to us that the only thing proven, is that the serum of a chancre and a dilution of one produce the same lesions. Whether these are syphilitic or not is not proven except negatively in so far that a second inoculation failed. Again, the serum of the second chancre was not examined for bacteria and it may be that all the bacteria found were due to quite another process than the syphilitic. We think that, although bacteria are small, they require a broader base on which to place themselves if they wish to assume such an important rôle.

ABSORPTION BY THE SKIN OF SUBSTANCES DISSOLVED IN WATER.—At the meeting of the Academy of Medicine of Paris, (*Bulletin de l'Académie de Médecine*, Oct. 8, 1882) M. Aubert, of Lyons, after having related the experiments he had made on this subject presented the following as the conclusions deduced therefrom by him:

1. The penetration of substances dissolved in water can effect itself though the epidermis, without any apparent erosion.

2. However, the essential condition to such a penetration appears to be an epidermic breach of continuity, produced in the sheath along the part of the hair which is above the skin.

3. In our experiments, penetration took place exclusively on a level with the hairy areas.

4. All conditions favoring a disturbauce of the hairs (friction with the hand wet or dry, volume, resistence and length of the hair) also induce penetration.

5. The fineness of skin and thinness of epidermis constitute rather unfavorable conditions, on account of the feeble development of hair in those regions; the absence of hair is equally an eminently unfavorable condition to absorption.

6. The possibility of absorption of small quantities of sub-

stances soluble in water through the epidermis and the feasibility of employing this means by the use of the bath or outside of it, may be readily conceived. To accomplish this the cutaneous surface must be rubbed largely and with sufficient intensity with the palm of the hand, and more especially on the hairy parts. The only inconvenience arising from such a practice is a moderate inflammation, a slight redness or burning localized at the point of emergence of the hairs.

7. No dependence can be placed upon the simple bath, even prolonged (two hours in our experiment) to effect the absorption of the smallest particle of a soluble substance.

NAPHTHOL IN ITCH.—Dr. Guèrin gives the following in *Paris Médical*, Sept. 23, 1882. Napthol is a parasicide; its use in itch and phthiriasis in man and in auricular acariasis in dogs proves this well.

Vaseline.....100 grams.
Naphthol.....10 grams

forms an ointment which may be applied in all stages of itch, complicated or not. It also acts rapidly in pruritus of scabies, without betraying its action by those burning sensations which generally accompany the frictions made with Helmerich's ointment.* It also acts in preventing the appearance of the eruptions which come on in itch and in which the ordinary employment of Helmerich's ointment is contra-indicated.

The duration of the treatment of itch by naphthol may be estimated at from ten to fifteen days. This preparation of naphthol induces no derangements either on the part of the skin or of the kidneys. The following are other advantages possessed by this preparation; it has an agreeable odor and has no destructive action either upon the clothing or bandages employed.

CHRONIC MILIARY SUDAMINA.—M. Pineau of the Isle of Oléron, made a communication on this subject to the French Society for Advancement of Science (*Progrès Médical*, Sept. 23, 1882). The author's conclusions are as follows:

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* Piffard gives the following as the formula for Helmerich's ointment:

℞ Potassii Carb.....℥j.
Sulph. Sublimat.....℥ij.
Ung.....℥viij.
M. O-D.

1. Acute sudamina (sporadic and epidemic) exists in a form not yet described and which the author proposes to call chronic miliary sudamina.

2. Succeeding most frequently to acute sudamina, of which it is then nothing but the very prolonged convalescence, it may come on spontaneously and be chronic from its onset, or succeed to a short sub-acute period in a country predisposed to acute sudamina.

3. According to the author this affects only adults ; and like the acute form it is found in women in somewhat larger proportion than in men.

4. The leading symptoms remind us of those M. Jaccoud assigns to cerebro-spinal irritation or nervousness; habitual and abundant, sweat, a rare and discrete miliary eruption, considerable muscular paresis,persistent atony of the stomach then subjective sensations of heat and cold, neuralgia or rheumatic pains, epigastric suffering and palpitations. This affection whose appearance is almost identical in every case, has a duration varying from a few months to three or four years and tends naturally to recovery.

5. Sulphate of quinine, in some rare cases, but in general cold hydrotherapy and, better still, continued currents, are the agents which it is best to oppose to this form of sudamina.

ADMINISTRATION OF ARSENIC.—In a lecture on the general therapeutics of skin biseases delivered by M. E. Guibout at l'Hôpital St. Louis and reproduced in *la France Médicale*, Oct. 5, 1882, we find the following reference to arsenic:

The solutions of Fowler and of Pearson are given in drop doses, or at the utmost by grams, and on that account are dangerous : the least amont of inattention is sufficient to double the dose and bring on trouble. As to the granules of Dioscorides, dosed to a milligram of arsenious acid, they are unreliable like all granules, some containing a large dose of arsenic and others being completely innocent of any. I prefer to formulate the preparations I prescribe ; employing the arsenic in solution or pill form. The solution I employ is as follows:

Distilled water.....500 grams.
Arsenite of soda.....0.10 centigrams.

This is given by the tablespoonful, each one containing from two

to three milligrams of arsenite of soda. The pill is as follows:

Arsenite of soda.....1 milligram.
Extract of gentian.....10 centigrams.

To begin with, six milligrams are given daily, the amount being divided into three doses in order not to fatigue the stomach. At the end of a certain time, one or two weeks, when the digestive tract and the constitution have habituated themselves to this remedy, the dose is increased and we may give as high as nine or ten milligrams of arsenite of soda in a day. But it is useless and may be dangerous to go above this amount. The arsenic is given at the beginning of the meal to avoid all digestive irritation and profit of the absorptive activity You may give before each meal, and according to the dose you wish to prescribe, one or two tablespoonsful of the solution or two or four pills.

Book Reviews.

Article XCI.

Contributions to Practical Gynecology. Illustrated with sixteen wood engravings. By S. James Donaldson, M. D. Part I. Practical Observations upon Uterine Deflexions. Part II. Practical Observations upon Dysmenorrhœa. Read before the New York Medico-Chirurgical Society, 8vo., pp. 134. (New York: Trow's Printing Co., 1882. For sale by J. H. Vail & Co., 21 Astor Place, N. Y.)

In the first part of this work the author begins with the consideration of the normal position of the uterus and gives illustrations from standard works on anatomy pointing out the defects and finally giving an illustration showing his own idea of this matter; and it really is one of the best representations of the pelvic viscera in woman, that we have seen for a long time. As a diagrammatic illustration it is excellent. One objection is that the rectum is represented as about half-filled, whereas if shown empty a more normal picture would be presented of the ideal relations.

In the consideration of flexions, he, of course, speaks of pessaries and takes that opportunity of introducing one devised by himself.

In the second part, devoted to dysmenorrhœa he considers the subject pretty fully and remarks: "While I regard mechanical interferences as indispensable, I wish to be clearly understood as classing them as accessories to the wider and more comprehensive laws that govern the general health."

1. Medical Communications of the Massachusetts Medical Society. Vol. XIII, No. 1, 1882, 8vo. pp. 76—80. (Boston: Printed by David Clapp & Son, 1882.)

2. Transactions of the Massachusetts Medico-Legal Society. Vol. I., No. 4, 1881. 8vo., pp. 179–208. (Cambridge: Riverside Press, 1882.)

3. Transactions of the Medical Society of the State of West Virginia. 14th and 15th Annual Sessions, 1881–1882, 8vo., pp. 665–840. (Wheeling: Lewis, Baker & Co., Printers, 1882.)

4. TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY for the year 1882. No. 2, Vol. VIII. 8vo., pp. 284. (Lansing: W. S. George & Co., Printers, 1882.)

5. TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF ARKANSAS at its Seventh Annual Sessions. 8vo. pp. 170. (Little Rock: Kellogg Printing Co., 1882.)

6. TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Vol. VI. For the year 1881. 8vo., pp. 542. (Phila.: Henry C. Lea's Son & Co., 1882.)

1. Four articles are contained in this installment of the communications, the first one being the Annual Discourse, by James P. Lynde, and devoted to Infantile Mortality, its Causes and Prevention. Dr. Charles F. Folson considers some Obscure Mental Symptoms of Disease and it is a well written paper whose only fault lies in its brevity.

The Relation of Mold Fungi to Disease is considered by Dr. William T. Gannett and is both useful and entertaining, the author holding that many so called fungous diseases cannot be proven to be such. Dr. Francis H. Williams in a Study of the Action of Iron says that in excessive doses it would be possible to produce deleterious results and that the increase in the number of blood corpuscles is probably a result of the improved nutrition.

2. A good resumé of the history and work of the society is given in the opening address by Dr. Robert Amory, the president. There are three papers in this, one being devoted to the cases in which a medical examiner should decline viewing a body, by Dr. Alfred Hosmer; Ignorance as a Legal Excuse for Malpractice by A. R. Pillsbury, Esq., and under what conditions and circumstances a medical examiner should employ a chemist, by Dr. E. P. Miller.

3. In glancing over these transactions we may readily perceive the hold obstetrics and gynæcology have taken upon the medical mind. The papers here presented are in the main good and many possess one good quality—brevity. The reports are good resumés of the progress made and, on the whole, these transactions compare favorably with the majority of those issued by State medical societies.

4. This is a small volume containing a number of good papers, all of which have been published in medical journals and extensively copied. This society is alive and up to the times and the men composing it are doing all in their power to make medicine advance in the great onward movement of progress. These transactions are put up in a neat and attractive form and are a credit to those issuing them.

5. Arkansas is getting to be progressive and presents us with quite a handsomely gotten-up volume of transactions. Dr. T. E. Murrell gives an exhaustive study of the red blood corpuscles in which is presented almost everything of any value known upon the subject. This volume is a credit to the society and to the State of Arkansas and shows what our friends can do if they only try.

6. Comment is hardly necessary upon these transactions. From the beginning they assumed an elevated standard and what is more difficult still, they have maintained it; besides, the papers contributed by the fellows, all of a high order of excellence, we find those presented to the council by the candidates elected to fellowship in 1881. After the transactions proper is given a list of Obstetric and Gynecological Journals and a Gynecological Index, this latter being an *index rerum* of the most valuable kind to all those specially interested in the subject. Altogether the transactions are improving in character and deserve to take the first rank in American medical literature.

CLINICAL CONTRIBUTIONS TO ELECTRICAL THERAPEUTICS. By ROMAINE J. CURTISS, M. D. 8vo., pp. 52. (Reprint from *Peoria Medical Monthly*, 1881-82.)

The author gives a record of the good effects of electricity, in a large number of cases of different deseases, including electrolysis in the removal of certain tumors of different varieties. He has used galvanism with good effects in various skin affections such as chromophytosis, herpes zoster, eczema, acne, etc. The author makes no comments, merely giving a record of the cases, and the treatment pursued. It makes very interesting reading, but it would be more valuable if the unsuccessful cases were also recorded.

A RATIONAL MATERIALISTIC DEFINITION OF INSANITY AND IMBECILITY, with the Medical Jurisprudence of Legal Criminality, Founded upon Physiological, Psychological and Clinical Operations. By HENRY HOWARD, M. R. C. S., Eng. 8vo., pp. 145. (Montreal: Dawson Bros., 1882.)

The author believes that insanity is a physical disease and that we must recognize animal mind as the product of organic matter. He also holds that imbecility is a result of teratological defect and insanity a result of pathological defect; but he also maintains that the teratological defect of the imbecile or idiot does not exempt him from pathological defect also. The author continues speaking of insanity and imbecility, throughout the first chapter. In the second he takes up the medical jurisprudence of crime and insanity, criminal responsibility.

Many celebrated cases are considered in this part, and among others, the author gives it as his opinion that Guiteau was an imbecile with recurrent mania. He is opposed to the legal dictum of determining insanity by the knowledge of right and wrong possessed by the criminal, this being an insufficient test of insanity.

The following we reproduce from page 123: "As far as I can judge, every crime that is committed, no matter by whom committed, gives additional proof that the Penal Code, as it now stands, is inefficacious in restraining crime, and that it should be modified; and it appears to me that if every criminal was considered as such, whether he be the habitual criminal, the habitual drunkard, or the impulsive criminal, or the occasional criminal, in virtue of his abnormal mental organization, in virtue of teratological or pathological defect, and treated accordingly, that it would be the most efficacious, because the most scientific means of restraining crime."

The book is well written throughout and contains a great deal of interesting information on an important subject; and the only fault we have to find with it, is the absence of both a table of contents and index.

THE CHANGE OF LIFE IN HEALTH AND DISEASE.. A Treatise on the Diseases of the Ganglionic Nervous System incident to Women at the Decline of Life. By EDWARD JOHN TILT, M. D. Fourth Edition, 8vo., pp 184. (Phila.: P. Blakiston & Co., 1882.) Cloth, $1.25; paper, 75 cents.

The first part of this excellent treatise is devoted to the physiology of the change of life, the importance of the critical epoch being considered in the introduction. In the second part is considered the pathology and in the third part the special pathology of the change of life. In this last part are considered the various diseases which may accompany the menopause and among these are diseases of the ganglionic nervous system, of the brain, neuralgic affections, diseases of the reproductive organs, of the gastro-intestinal organs, of the skin, and several others such as gout, rheumatism, etc.

The book is well written and replete with useful information and containing many valuable tables. These number thirty five and relate to the various matters spoken of in the treatise. The number of illustrative cases given is sixty-three, and contain a great deal of material of the highest clinical importance. We can recommend this work to the careful study of every intelligent practitioner of medicine, as the cases and diseases recorded here will often prove very troublesome, unless a clear insight into the subject has been previously obtained.

1. PHYSICIAN'S VISITING LIST FOR 1883. (Phila.: P. Blakiston, Son & Co.)

2. PHYSICIAN'S COMBINED CALL-BOOK AND TABLET. (Washington: Ralph Walsh, M. D.)

3. THE MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY for 1883. (New York: Wm. Wood & Co.)

1. This list has been tested by time and is still the favorite with many physicians and among the best offered to the profession. It is handsome in appearance and easily fits the pocket.

2. This list is handsomely gotten up in Russia leather and can be used for any year. The addition of a tablet upon which memoranda may be written and subsequently erased, makes this a very useful call-book. It has a host of friends and deservedly so.

3. This list keeps up the high standard it adopted from the beginning and we can heartily commend it.

1. INDEX TO CATALOGUE OF THE LIBRARY of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. III. Cholecystin-Dyondi. 4to pp. 1020. (Washington: Government Printing Office.)

2. THE MEDICAL DIGEST OR BUSY PRACTITIONERS Vade-Mecum. Being a Means of readily acquiring Information upon the Principal Contributions to Medical Science during the last Thirty-Five Years. By RICHARD NEALE, M. D. Second Edition. 8vo., pp. 643. (London: Ledger, Smith & Co.)

1. This volume is fully up to the thoroughness and completeness of the two former volumes. As we have remarked in reviews of the other volumes this is a stupendous undertaking carried out successfully. This volume includes 9,043 author titles, which represent 10,076 volumes and 7,386 pamphlets. Besides this it includes 8,572 subject titles of separate books and pamphlets, and 28,846 titles of articles in periodicals. There are also catalogued 4,335 medical portraits.

We wish here to remark once more that an excellent supplement to this, issued monthly, is the *Index Medicus* which deserves all the support it can get at the hands of the profession.

2. This is a digest of a certain number of periodicals and not a mere index. In fact a general idea on a subject may be obtained by glancing over the title. There is a copious index attached which refers to all subjects under every variety of designation, and contains nearly 10,000 references, while the book itself has probably over 120,000 distinct entries. This gives somewhat of an idea of the great labor involved in merely "digesting" a few of the best medical journals. This book was considered so valuable at the publication of the first edition in 1877 that the New Sydenham Society adopted it.

A TREATISE ON THE PHYSIOLOGICAL AND THERAPEUTIC Action of the Sulphate of Quinine. By OTIS FREDERICK MANSON, M. D., 12mo., pp. 164. (Phila.: J. P. Lippincott & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

This is a good compendium of the work which has been done experimentally and clinically upon one of the most commonly employed of medicinal agents and one of which such enormous quantities are used in this country. It is a reprint of a paper read before the Virginia State Medical Society and excited marked attention at the time it was read. It contains a great deal of useful information and many facts which the reader will immediately recognize.

THE PHYSICIAN HIMSELF and what he should add to his Scientific Acquirements. By D. W. CATHELL, M. D. Second Edition, Carefully Revised, 8vo., pp. 208. (Baltimore: Cushings & Baily, 1882.) Price, $1.25. From the author.

The rapidity of the appearance of the second edition of this little book attests well to its merits. In this edition the matter is divided into chapters and the title is slightly changed. It contains what was formerly the unwritten law, and will prove of great benefit to the young physician about to start upon his professional journey through life. The authorhas done his work well and in a pleasant manner.

WHAT TO DO IN CASES OF POISONING. By WILLIAM MURRELL, M. D., F. R. C. P. Second Edition, 32mo., pp. 96. (Detroit: Geo. S. Davis, M. D., Publisher, 1882.)

This is a very small book which can be conveniently carried in the vest-pocket. The author gives a description of an "antidote bag" and what it should contain. After this we have plain directions in regard to the manner of treating cases of poisoning by the more ordinary poisons. In addition the author gives the toxic, medical and antidotal doses of the various poisons spoken of. This is a very handy ltttle book for the physician to have about him.

Books and Pamphlets Received.

Article XCII.

The Diseases of Women. Their Pathology, Diagnosis and Treatment, including the Diagnosis of Pregnancy. By Graily Hewitt, M. D., London, F. R. C. P. Fourth American, from the last revised and enlarged London Edition, with one hundred and thirty-two illustrations. 8vo., pp. 751. (Phila.: P. Blakiston, Son & Co., 1882. St. Louis: Frank Rivers, 204 N. 5th St.) Price, paper, $1.50; cloth, $2.00.

A Treatise on the Practice of Medicine. For the Use of Students and Practitioners. By Roberts Bartholow, A. M., M. D., LL. D. Third Edition, Revised and Enlarged, 8vo., pp. 918. (New York: D. Appleton & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

A Treatise on Therapeutics, comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, M. D. Fourth Edition, Revised and Enlarged. 8vo., pp. 736. (Philadelphia: J. P. Lippincott & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

The Pharmacopœia of the United States of America. Sixth Decennial Revision. By Authority of the National Convention for Revising the Pharmacopœia held at Washington, A. D., 1880. 8vo., pp. 488. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

Rheumatism, Gout, and some Allied Disorders. By Morris Longstreth, M. D. 8vo., pp. 280. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.) Oct. No. Wood's Standard Library.

The Medical Record Visiting List or Physician's Diary for 1883. (New York: Wm. Wood & Co.; St. Louis: Hugh R. Hildreth Printing Co.)

Contributions to the Vital Statistics of Australia. By James Jameson, M. D. Reprint from the *Australasian Medical Gazette* for 1882. 24mo., pp. 30. (Sydney: L. Bruck, Medical Publisher, 1882.)

Anatomical Technology as applied to the Domestic Cat. An

Introduction to Human, Veterinary, and Comparative Anatomy. By Burt G. Wilder, B. S., M. D., and Simon H. Gage, B. S. 8vo., pp. 575. (New York and Chicago: A. S. Barnes & Co., 1882.) Price, $4.50.

On Slight Ailments: their Nature and Treatment. By Lionel S. Beale, M.B., F. R. S. Second Edition, enlarged and illustrated, 8vo pp. 283. (Phila: P. Blakiston & Co. 1882. St. Louis: Frank Rivers, 204 N. 5th). Price; cloth, $1.25, paper, 75 cts.

Walsh's Physicians' Combined Call-Book and Tablet. Seventh Edition, price $1.50.

The Physician's Visiting List. (Lindsay & Blakiston's) for 1883. Thirty-Second Year of Publication.

Use of the Ecraseur for Curing Deep-Seated Fistula in Ano. By J. M. F. Gaston, M. D. (Extracted from the *American Journal Medical Sciences*, for July, 1882.)

Annual Report of the Brooklyn Homœopathic Hospital for 1881.

Jaundice in Pregnancy, with Reports of Cases. By J. W. Underhill, M. D. (Reprint from Vol. VI., Gynecological Transactions, 1882.)

Railroad Surgery. By Dr. W. W. Trader. (Read before the Missouri Medical Association.)

Phlegmasia Alba Dolens. By P. V. Schenck, M. D. (Reprint from *St. Louis Courier of Medicine*, Aug., 1882.)

The Use of Hot-Water Injections in Uterine Diseases. By P. V. Schenck, M. D. (Reprinted from *The American Journal of Obstetrics and Diseases of Women and Children*, Oct. 1882.)

News Items.

Article XCIII.

The *Australasian Medical Gazette* has put an a new cover and its appearance is considerably improved thereby.

Credit to Whom Credit is due.—Philip Doddridge (1702–1751), spoke of nerve-stretching, and recommended it as a religious stimulant in his *Zeal and Vigor in the Christian Race.*

"Awake my soul: STRETCH EVERY NERVE,
And press with vigor on."

The celebrated Prof. Friederich, in Heidelberg, died on the 6th of last month. His work on "Progressive Muscular Atrophy" belongs to those which make his name known the world over.

Dr. Geo. Hulbert has been appointed resident physician at the Female Hospital and it seems to have created quite a stir, on account of the conflicting interests involved.

We regret exceedingly to announce that with the completion of its eighth volume the *Archives of Dermatology* will no longer be published. It is a consoling thought, however, that the *Journal of Cutaneous and Venereal Dieeases* which remains the only medical journal devoted exclusively to skin diseases in the English language, is an American institution.

Sweet Peace.—Two New York neurologists were recently seen to shake hands in a cordial manner. It is thought now that it will not be necessary to organize a third neurological society.—[*N. Y. Med. Record.*

We are so glad. Utterly two-two.—[*Lancet and Clinic.*

Among our exchanges the *Churchman* is the largest and most widely circulated weekly in the Protestant Episcopal Church.

$3.00 a year. Office, Churchman Building, 47 Lafayette Place, New York.

IT is reported that the trustees of the Johns Hopkins Hospital intend to open that institution and the medical school to be connected with it in the fall of 1883.

SPEAKING of homœopathic remedies, the following delectable substances are contained in the American Homœopathic Pharmacopœia (published by Bœrike & Tafel, New York, 1882), whose names sufficiently indicate their composition: *syphilinum, buboinum, gonorrhin, leucorrhin, glanderin, anthracin, psorin*, etc., etc. They are called isopathic remedies or nosodes, which are defined to be "remedies obtained from morbid products of the animal system." Is the public at all interested in knowing who administers such repulsive and loathsome agents, or is it too indolent, to inquire?—[*Boston Med. and Surg. Jour.*

THE *New York Medical Journal and Obstetrical Review* will, from the first Saturday in January 1883 be published weekly instead of monthly It will be a large double-column journal and will have for a prominent feature the publication of original lectures. It is falling into line and it seems that in New York we shall soon have nothing but weeklies and quarterlies in medical journalism. The *New York Medical Journal* has always been a good one and we have no doubt, but that this move is in the right direction.

We have received from Messrs. Wm. Wood & Co. a splendid mezzotype of a picture by H. Kretschmer and representiug the "Village Doctor." It is a well executed piece of art, and one which every physician should hang up in his office. It appeals to the finer sensibilities and its possession will at once indicate that its owner posesses artistic taste and discrimination as well as learning and skill.

THE STUDY OF ANATOMY IN THE STATE OF MARYLAND.—Two important laws have recently been passed by the Maryland Legislature, legalizing the practical study of anatomy and providing the use of bodies, as subjects, of persons who would otherwise be buried at the public expense.

THE PROMOTION OF THE STUDY OF PHYSIOLOGY.—By the will of the late Prof. F. M. Balfour, $5,000 is bequeathed to Dr. Michael Foster, to be applied by him to the promotion and encouragement of the study of physiology.

A SECOND Post-Graduate School has been opened in New York city. It will teach only medicine and surgery. No didactic lectures given here. Its building is on Thirty-fourth Street. It will give five sessions of six weeks each. Thirty-six clinical lessons will be given on each subject during each session. The faculty is composed of gentlemen connected with the several hospitals and clinics of New York, and not already engaged in teaching.—[*Detroit Lancet.*

TYPHOID FEVER IN PARIS.—Typhoid fever, which may be said to be almost endemic in Paris, has arrived almost to the proportions of an epidemic since the month of June.

The number of deaths from the disease was 161 for the first week in June, and 273 in the last week.

Again, from September 22d to the 28th, there occurred 57 deaths, and from September 29th to October 5th, 134 deaths, while in the corresponding weeks of 1881, there occurred respectively 21 and 27 deaths from the disease.

There are at present 2074 cases of typhoid fever in the Paris hospitals; at the Lariboisière hospital alone there are 437 patients. On the two days, October 10th and 11th, 283 cases were admitted into the hospitals. The epidemic has assumed such proportions that most chronic patients have been removed, and barrack hospital serected at Cochin, St. Louis, etc.—[*Med. and Surg. Reporter.*

EX UNO DISCE OMNES.—The *Chicago Medical Review* is responsible for the ollowing: A Cyprian in Chicago fell into labor and was delivered by an accoucheur noted for his punctilious observance of all the requirements of the laws. In making out the return of the birth he was obliged to perform an impossibility,—*i.e.*, to state the name of the father of the child. When he came to this a bright thought struck him, so he escaped the quandary and satisfied his conscience and his patriotism by writing "E Pluribus Unum." For his services he should and doubtless did, receive nothing less than an American eagle.—[*Phila. Med. Times.*

THE present issue closes the third year of the publication of the *Annals of Anatomy and Surgery*, as a monthly periodical, and it seems to be a favorable time for indulging some reflections as to the reason of its being, and the aims of its future. It still remains as instituted, the only journal devoted to Surgery, and to Anatomy as related to Surgery, published in the English language. The first number of the *Revue de Chirurgie*, which appeared in France nearly at the same time, added a similar journal for the use of those familiar with the French language—"Langenbeck's *Archives*," Volkman's *Series of Clinical Lectures*," the *Centrablatt*, and *Zeitschrift für Chirurgie*, have continued to present to readers of German the surgical work of the nation. That in America also should be maintained a special journal of Surgery, there is found ample reason in the number and quality of the special workers in this field, in the character of the problems which engross its students, and in the rapid strides towards scientific precision which surgical practice has witnessed within the past two decades.

On the eve of the beginning of a new year the editors take the opportunity of announcing their aim to continue the practical and high character of the contents of the journal, and to make its tone progressive and liberal. They will have the assistance of the same corps of associate editors as in the past, with the addition of Dr. Roswell Park, of Chicago, Lecturer on Surgery in the Rush Medical College, and Surgeon to the Michael Reese Hospital. The *Annals of Anatomy and Surgery* will therefore continue to be issued monthly, and will present, in each number, detailed studies and elaborate articles from special contributers, and careful editorial reviews, digests and discussions of such topics and books as may seem to be of special importance, from time to time. Articles for the journal are now in course of preparation by Prof. W. T. Briggs, of Nashville, Tenn.; C. B. Keetley and R. J. Godlee, Esqs., of London, Eng.; Dr. H. D. Schmidt, of New Orleans, La.; Profs. Moses Gunn and Edmund Andrews, of Chicago, Ill.; Prof. W. W. Keen, of Philadelphia; Prof. Hunter McGuire, of Richmond, Va.; Dr. H. A. Martin, of Boston, Mass.; Prof. F. H. Gerrish, of Portland, Me.; Dr. F. W. Rockwell, of Brooklyn, N. Y.; Profs. Thos. F. Rumbold, T. F. Prewitt and L. Bauer, of St. Louis, Mo.; Prof. P. S. Conner, of Cincinnati, O.; Prof. Randolph Winslow, of Baltimore, Md.; Drs. H. Bangs and W. T. Belfield, of Chicago, Ill.; Prof. A. L.

Ranney, of New York; and Prof. Wm. Osler, of Montreal, Can.

The scope of the journal, will include also, as indicated by its title, particularly those lines of anatomical research which have bearing upon practical surgery.

The scholarly sketches of the old masters of Anatomy and Surgery, which for three years have regularly appeared in the journal, from the pen of Dr. George Jackson Fisher, of Sing Sing, N. Y., will be continued during the year to come. Beginning with Avicenna in the January number. Hally Abbas, Albucasis, and the school of Salernum will successively form the subjects of sketches.

During 1883, in addition to the features which have heretofore characterized the journal, it will publish the proceedings of the New York Surgical Society, which will include many elaborate papers and discussions of the greatest value.

HENRY DRAPER, M. D., LL. D.—In the Death of Prof. Henry Draper, of New York, which occurred on the 20th of November, the scientific world has lost another of its most ardent and original workers. He was the son of the late Professor John William Draper, and was born in Prince Edward County, Va., March 7th, 1837, removing, with his parents, to this city three years later, when his father was appointed to the Chair of Chemistry in the University of the City of New York. He graduated in the Medical Department of the University in 1858, and after spending some months abroad, was appointed on the medical staff of Bellevue Hospital, and served for eighteen months. Since 1860 he had filled, with some intermissions, the Chair of Physiology in the Universiny, and for many years was the managing officer of the Medical Department.

Upon the death of his father, in January last, Professor Draper was elected to the vacant Chair of Chemistry in the Academic Department, which, however, he soon resigned, finding that his duties at the University interfered with his original researches.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—OCT., 1882.

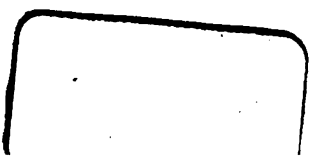
Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	62.5	71.5	18	43.0	59.0
2	65.0	80.0	19	44.0	60.0
3	65.5	81.5	20	40.5	60 0
4	64.5	84.0	21	44.5	65.0
5	64.5	84.5	22	46.0	63.5
6	64.0	81.5	23	43.0	63.0
7	64.0	81.0	24	45.0	70.0
8	64.0	78.0	25	56.0	78.5
9	57.0	69.5	26	50.0	68.0
10	59.5	74.5	27	58.0	68.0
11	50.5	56.0	28	55.0	64.0
12	49.0	79.0	29	43.0	60.0
13	58.0	71.5	30	49.0	74.0
14	54.0	75.0	31	58.0	63.0
15	49.0	75.0			
16	60.0	63.5	Means	53.9	70.3
17	44.0	58.5	Monthly Mean.	62.1	

Quantity of rain, 2.18 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM OCT. 7, 1882, TO OCT. 28, 1882,. INCLUSIVE.

Small Pox..... 0	Childbirth..... 3	Convulsions & Trismus Neonatorum 41	Syphilis..... 0
Scariatina..... 32	Inanition, Want of Breast Milk, etc. 0	Hydrocephalus and Tub. Meningitis. 3	Apoplexy 6
Pyæmia & Septicæ 4	Alcoholism..... 7	Meningitis & Encephalitis 10	Dis. fem. gen. org. 3
Erysipelas 4	Rheumat'm & Gout 0	Other Diseases of the Brain and Nervous System 22	Surgical Operation 0
Diphtheria 53	Cancer and Malignant Tumor.... 13	Cirrhosis of Liver and Hepatitis.. 13	Deaths by Suicide 8
Membran's Croup. 17	Phthisis & Tuberculosis, Pulmon 73	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 23	Deaths by Accid't 20
Whooping Cough. 3	Bronchitis.. 12	Bright's Disease 5 and Nephritis...	Deaths by Homicid 5
Still-born.....—	Senility 11	Other Diseases of Urin ary Organs. 2	Congen Detor'ty 18
Measles 1	Pneumonia..... 22	Dis. locom Organs 0	Total Deaths from all Causes... 596
Typhoid Fever....18	Heart Diseases ... 23		Total Zymotic Diseases 221
Cerebro Spinal Fev 6	Other Diseases of Respir'y Organs. 15		Total Constitutional Diseases.....116
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers. 25	Dis. Integ..... 1		Total Local Diseases 197
Puerperal Fevers.. 4	Marasmus—Tabes Mesenterica and Scrofula..... 21		Total Develop'tal Diseases .. 29
Diarrhœal Diseas 36	Other Const. Dis. 6		Deaths by Viol'ce 33
Other Zymotic Diseases 5			Unknown 0

CHAS. W. FRANCIS. *Health Commissioner.*

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